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cover story

The first digest in this issue describes a crisis intervention center for youth in crisis. Pictured on the cover are Dr. John M. Denison (lower left) and some of the youthful staff members at the center.

(Picture courtesy of Dr. Denison and the *Canadian Medical Association Journal.* Copyright 1971 by the Canadian Medical Association Journal.)

mental health digest

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An Unusual Social Experiment to Help Youth in Crisis (Ankh)

JOHN M. DENISON

In Newmarket, Ontario, we have an unusual service run by young people to meet the needs of other young people in crisis. At a meeting in January 1970 to discuss drug use by youth it became apparent that a significant body of youth were experiencing forms of crisis that they needed help to resolve, but felt themselves incapable of taking to existing agencies for fear of being reported to parents or police, being rejected, having to face moral judgments, or because they felt that the help offered was inappropriate. This was particularly so with respect to drug use and the whole "drug-use subculture" about which they felt the adult world was ignorant and prejudiced. The result was ignorance on all sides as to the drugs being used, their real effects, side effects, and dangers. Some youth, particularly amphetamine abusers, were very alienated, not only from society, but from their subculture, and were forming small groups apparently hell-bent on self-destruction.

It became apparent that one was dealing with "people problems" of which drug abuse was a symptom, although one had also seen "drug accidents." There was considerable concern among older youth at the unsophisticated, reckless way in which "teeny boppers" were plunging into the "drug scene." There was consent among users, youthful non-users, police, and others in touch with "the problem" that a significant increase in drug use would occur during the summer.

It became apparent that there was a large problem, ill-defined in extent and direction, which had to be tackled. It was incapable of solution by any one arm of the community, but was a "whole-community" problem. A three-prong approach was envisaged, each interdependent. described as preventive, educational, and therapeutic.

Key resource people were identified within the community and their aid was enlisted to overcome community inertia. Social Action Committees were formed, composed of youth and adults; the cooperation of police, educators, medical and paramedical services was obtained. Under the auspices of the Newmarket and Aurora Social Action Committees a Crisis Intervention Service Committee was formed to oversee the developing service. The latter had originated as a joint project between one of the investigators and a group of concerned young people to establish a base from which a team would operate and to which youth in crisis could go in confidence for help.

The Committee believed that it was best to meet an untraditional problem in an untraditional way. It was considered imperative that a pilot scheme be rapidly inaugurated so that the extent and direction and the nature of "the problem" could be established, and from which new techniques could be learned.

The basic aims are:

To give young people honest, factual information about the drugs.

To discourage the use of drugs by young people.

To have a service, run by staff to whom young people can relate, to

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which they can feel free to go. in confidence and trust in time of need.
To intervene, when asked, in the crisis situation in whatever way seems most appropriate for the client's best interest.

The Board of Management of York County Hospital put at our disposal a large old house close to the hospital. The Addiction Research Foundation gave a grant-in-aid toward running the crisis service and two drop-in centers. They helped us to locate suitable young people to staff the service. Their sole qualifications were that they knew the drug scene and were concerned and experienced in handling "life-situations."

The final staff, in whom we have been fortunate, were a professor and two students from York University, three local Grade 13 students, and two young married men. We have an administrative adviser, and a family practitioner as clinical director. To this are added several volunteer helpers (mainly ex-clients), plus the services of five more physicians (including one urologist and one obstetrician). A close liaison exists with the hospital.

The staff selected a name—*Ankh*, which is the Egyptian word for life. Their aim is to offer a 24-hour counseling and referral service to youth in crisis.

The committee decided that once the service was established it would operate a "hands-off" policy, and leave the staff to determine "crisis," need, etc., as it felt best and that it would intervene in the service only when asked or in the face of major problems. It was believed that only by doing this could the needs of the youthful community be identified.

The workload, since the inception of Ankh, has shown an interesting pattern. There was an initial period, during which many young people came to look, to help clean up and equip, or to pour scorn on the enterprise. Then there came a latent period during which staff and the "subculture" waited to see how the first cases would be handled. Once credibility had been established, the workload began to rise and it is continuing to do so.

Part of the first 2 weeks was spent in visiting schools to hold informal "teacher-free" rap-sessions between students and the staff, and at one school the Clinical Director had a similar session with teachers. The staff were also making themselves known to the police, hospital, emergency department, public health unit, and youth generally.

A presentation by the staff and the Crisis Committee was made to York County Health and Welfare Committee at which they received the backing of the Children's Aid Society, Public Health, Child and Family Court, Probation Service, and attendance officers. Time was spent in equipping the house and sorting out administrative detail, getting to know one another and thrashing out our own ideas.

Present Form of Service

Ankh Crisis Intervention service operates 24 hours a day. Staff on duty sleep on the premises when they can. During the day some stay in the house while others are out wherever young people congregate. The area served is the northern half of York County, with a population of some 75,000.

Clients are referred in the following ways: self-referral, by friends and relatives, by the police, by the Children's Aid, by the hospital emergency department, by Child and Family Court, and by local physicians.

The majority are handled by the staff and do not require other profes-

sional help. This aid may involve individual or group counseling sessions, specific talking down and reassurance after "bad trips." The physician may occasionally have to give Valium. Sometimes all the help that is needed is food and a mattress to sleep on until morning when the client can get home or to friends. For the more acutely agitated paranoid reaction, a client may need to stay 2 or 3 days.

About 50 percent of clients do not have drug problems but come with various personal problems, e.g., rows with parents or guardians, being thrown out or locked out of home, with no money and nowhere to live, being out of work, worries about pregnancy or venereal disease. Some clients ask for advice and information about the drugs they are using or intend to use. Some come because it is the only place where they feel accepted and have the opportunity to sit and think on neutral territory and to work through their own problems.

Some clients require legal advice; others need medical check-ups but are afraid to go to their doctors. These are referred to the appropriate agency. Some are referred to the Clinical Director for assessment of their mental/emotional status because the staff feel that they may have mental illness. Considerable time is spent in ongoing "treatment" situations, and in liaison with local authorities.

Anonymity for clients is respected, so that many times only a first name or pseudonym is known. The name given by the client is recorded in the log-book and on "first-contact forms" filled for each client who asks for help. Casual callers outnumber clients —people call to see friends or to find out where they are, and professional callers come in to see how the service functions.

Current Workload

The workload has risen and is heaviest toward the end of each week. In a recent weekend 130 young people visited the service. Of these, 30 were youths with acute drug problems. Six were seen by physicians. Three girls sought help about possible pregnancies. Two youths who had alcohol problems were seen (such individuals are more common than one would think). One client was seen in jail and the Ankh staff called in the physician on duty, who diagnosed schizophrenia; the patient was transferred to the Psychiatric Unit. One case was referred from the Hospital Emergency Department. In one night 17 young people called to talk about the drugs they were using. Twenty-two were "on-going" clients who wished further counseling or contact with the staff. Four young people spent one night "crashing" because they could not get home. Eight others stayed because of personal problems at home. Over 60 telephone inquiries were received, of which about one-third were about crisis/semi-crisis problems and the remainder were from callers wishing to locate relatives or friends. Also, two of the staff visited a park in North York and were invited to talk about drug abuse to a group of young people.

Significant Features Behind Ankh's Success

These have been learned from talking to clients:

First, the staff—drawn from the peer group, with an awareness and sensitivity in knowing how to act in crisis situation, namely to remain cool and calm, yet able to switch from gentle objectivity to moralizing in what can only be described as plain and forthright language at the appropriate moments. For me, with training and experience in psychotherapy, it has been an enjoyable and humbling ex-

perience to see how expert these "theoretical nonprofessionals" are in diagnosing and handling crisis situations.

The house itself—The large, old house has a warm welcoming ambience. It is furnished with old chesterfields, easy chairs and mattresses, and the walls are decorated with posters. Anyone walking in feels welcome and at ease. The setting is probably a more powerful therapeutic tool than one could credit, and its disadvantage is that for a few clients it has encouraged dependency.

Having animals in the house is often comforting and reassuring to someone on a "bad trip," or helpful to those who find it difficult to verbalize their own emotional loneliness and isolation. For some the act of stroking and caressing a cat or dog has enabled them to give expression to their feelings.

The guarantee of anonymity, the sense of trust that has been built up.

The "hands-off" policy of the Crisis Committee and the cooperation of the agencies without any interference in its development.

These factors define its success in terms of effectiveness in relating to young people and of creating a service which youth feels free to use with confidence.

How successful is it in handling crisis situations? This is more difficult to assess because of the range of problems handled.

Drug accidents: These are handled effectively with minimum disturbance and seldom need a physician's attendance or hospitalization. This result compares favorably with the dislocation caused by admission to an emergency department or hospital ward and works out at only a fraction of the cost.

Drug addiction: This is virtually limited to amphetamine abusers and to one or two heroin addicts. These are difficult to treat. Ankh is a crisis service and is not equipped to carry out long-term therapy; it is too soon to assess its value in this role, but many addicts do keep returning to Ankh and while doing this they make real attempts to stay off drugs or to cut down their intake.

Personal problems, family rows, etc.: For this group about 80 percent of the immediate problems are resolved satisfactorily.

Successful encouragement (90 percent) of people who need but have refused medical aid, e.g., venereal disease, hepatitis, pregnancy, etc.

Objections

Is the service being used by some young people for selfish ends? Yes, undoubtedly, but we accept this as better than to refuse help to anyone in need.

Is the service helping drug users to get off drugs, or is it making them more sophisticated users of drugs? We would prefer young people to stop using drugs, but if they insist then it is better for them to be more knowledgeable about the drugs they are using in order to avoid drug accidents and complications like hepatitis or septicemia.

Does it encourage young people to leave home, or to stay away from home? Definitely not. It has been distressing to discover the number of young people who have been thrown out of home, or locked out, or of whose whereabouts parents and guardians seem unconcerned. These young people are usually bedded down for the night, the family is informed that they are under our care, and then attempts are made to resolve the situation the following day.

Future Plans

This service was inaugurated as a summer project. All those connected with it feel that its value to the community has been demonstrated. They also feel that it should be allowed to grow on a feedback basis with minimum organizational structure, so that it can shape itself to its role as it becomes increasingly defined. It should not become another organ of the Establishment—medical, psychiatric, social, or political. Specific plans are:

To establish a "job-bank" for young people in the area.

To continue informal educational discussion groups with young people in other schools.

To develop, with a sociologist, ways of utilizing information received from clients as useful research material for understanding more about the motivation of youth in crisis.

To develop Balint-type group sessions of staff to increase effectiveness and competence.

To encourage volunteer participation.

To investigate the possibilities of setting up some sort of "halfway house" to help some youth, once the crisis is over, get reestablished in the community.

It does not require vivid imagination to realize the anxiety engendered among all sorts of people when an old house is taken over by long-haired, casually dressed young people and frequented by all sorts of "hippie" types, including young girls who stay the night. This is especially true when some of the habitués are drug addicts. And what does this do to physicians and social workers when they meet young staff whom they are asked to treat as professionals? It says much for the citizens of Newmarket and my colleagues that Ankh has been accepted.

Generations and Counter-Culture: A Study in the Ideology of Music

R. Serge Denisoff and Mark H. Levine

The counter-culture is an amorphous representation of the generational unit which cuts across educational and ideological boundaries. It constitutes a social entity which emerges en masse at given social events, such as demonstrations, rock festivals, love-ins, marches, and the like, and then melts away until the next such happening. The counter-culture is viewed as "experiential" rather than ideological. It is a product of the demands of technology and the new industrial state, rather than the ideologically prescribed causes of alienation and immiseration.

The hub of the counter-culture, given its experiential nature, is the musical genre of rock, from whence come the heroes or high priests of counter-culture, the rock musicians. At the peace moratorium the greatest audience response was to rock music. Given the nature of the counter-culture, even the broadest of political movements is not necessarily representative of the entelechy of the current generational unit. For example even the most liberal estimates of antiwar demonstrations in America have not matched the turnout for the Woodstock Festival nor the Rolling Stones' free concert at Livermore, California.

While politics as an organizational phenomenon reflects less than a tenth of the present generational unit, rock music affects over 80 percent of this group.

Generational Conflict and Rock and Roll, 1950–1970

Rock and roll emerged during the 1950's as an aberrant deviation, in that it connoted juvenile misconduct not in the lyrics, but in the presentation of the material, such as the dress styles and stage presence of performers. The key word was "roll," suggesting sexual intercourse. Lyrically, however, the notions of adolescent passage into adulthood and postponed gratification were stressed. The adult generation at this time objected to rock and roll as senseless and incoherent. As such, rock and roll was perceived by the adult generation of the 1950's as deviating from the outward symbols of respectability and the basic normative order. Rock and roll, as opposed to the rock music of the next decade, did not question basic values or institutions. The fact that youngsters like junk music was seen as a fad which they would pass out of upon entering adulthood.

In the 1960's rock music was nonconformist, in that it was viewed as urging social change. The stress of the music of the 1960's was upon lyrical content. Rock music was viewed not as advocating a temporary role suspension, but rather as questioning basic values and institutions. For example, the sentiment of turn on, tune in, and drop out, found in some rock numbers stresses total disaffiliation. Drugs, discussed in some songs, are also viewed as a barrier for later participation in the system.

More importantly, rock music has in time gained an intellectual respectability lacking in the 1950's. It was only in the late 1960's that scholarly interest was directed to this musical phenomenon. In the 1950's, serious musicians and adults in general denounced rock and roll as déclassé in

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an artistic and moral sense, whereas in the 1960's rock music has been seen as innovative and classé, but as politically and intellectually deviant.

Origins of Contemporary Rock

Contemporary rock music is the product of several déclassé subcultures and musical genres vis-á-vis middle America and popular music. Rock and roll was a direct spin-off from race music originally directed to urban Black ghettoes. Another important strain is derived from "hillbilly," or the country and western genre. This genre, until recently, was primarily addressed to a rural, white audience in the southern and western parts of the United States.

The dominant or kitsch society's exposure to rock and roll was originally through so-called "cover" versions of Black material. Here popular as well as country singers would take race material and make it usable for their audience. This practice was necessary because of the emphasis on roll, or sex, in these original versions. For example, the Midnighters' "Work With Me Annie" was transformed to "Dance With Me Henry." "Shake, Rattle and Roll," was changed to exclude obscene passages. Covering was not always moralistic, but overtly economic. For example the Chords, a Negro group, recorded "Sh Boom" for the ghetto market. The Crew Cuts recorded the same inoffensive lyrics, added strings, and other kitsch trappings, and produced a million seller in the white or pop market.

In the country and western sphere a similar process took place with Bill Haley, and later, Elvis Presley, taking Negro blues tunes and merging them into a semi-country or "rock-a-billy" style.

Despite the innocent lyrics, rock and roll was associated in the mass culture with various déclassé undertones. One of the original best-selling records in this genre was Bill Haley's "Rock Around the Clock," the theme song from the movie *Blackboard Jungle*. Equally, Presley's physical appearance greatly paralleled and furthered the American stereotype of a delinquent youth. Presley, as an examination of his early hits show, was not in any way a social or political dissenter. Only his outward appearance and his stage posture, or lack of it, offended adult sensibilities. Yet the lyrics of Presley's song continued the romantic love syndrome of less controversial crooners, as with "I Want You, I Need You, I Love You," and "Heartbreak Hotel," a classic statement of the rejected suitor. Nearly all popular songs during the mid-fifties were addressed to ancient courtship motifs.

Early Rock Themes

Early rock music rarely went beyond "boy-meets-girl, loses-girl" themes. Occasionally some song dealing with adolescence or the music itself would become popular, but generally the music was in keeping with social norms. Chuck Berry was one of the few stars who recorded songs such as "Brown-Eyed Handsome Man," "Almost Grown," "Monkey Business," "Rock and Roll Music," and "Roll over Beethoven" which questioned the status quo. The latter two pieces were direct attacks upon the more traditional musical tastes of an older generation as well as a reaffirmation of rock and roll. Some of his other recordings such as "Almost Grown" and "Monkey Business" stated the problems of adolescence, but concluded "Don't bother me, Leave me alone . . . I'm almost grown." Eddie Cochran's "Summertime Blues" is universally considered the first protest

song in the rock genre. The piece is typical rock-a-billy or Presley style, emphasizing the hardships of part-time jobs, getting the car, and adolescence in general. The only political reference, however, was to the lack of enfranchisement. This feature was characteristic of all of the quasi-protest songs of the early rock and roll period, indeed, most of the songs ended in resignation to cultural diffusion and parental domination. In fact, several observers have gone so far as to suggest that rock music was little more than "background noise" selectively turned on and off.

Influence of Folk Genre on Protest Themes

Folk music, historically, has been utilized as a vehicle for social protest. In America it has been exploited especially, but not exclusively, by the working class or left-wing movements, particularly the Industrial Workers of the World and the Communist Party. This latter movement sowed the seeds of the revival, although it never succeeded in popularizing the folk genre itself. Folkniks, during the revival of the early 1960's, discovered the songs of Woody Guthrie, Molly Jackson, The Almanac Singers, and, of course, Pete Seeger. In time, they wrote songs about the social strains of their period, rather than recalling the labor struggles of the 1930's, and the Spanish Civil War. The key figure in this transition was Bob Dylan, who wrote countless pieces decrying racial, political, and other social dysfunctions.

Concomitant to the popularization of "protest singers" particularly on college campuses, was the rise of the Beatles, who revitalized the popular music field. The Beatles, with their Skiffle tradition, covered early American blues recordings as well as writing their own material. Originally, their material was in the romantic love vein of "I Want to Hold Your Hand" and "She Loves Me." Several ex-folkniks, particularly the Byrds, a rock group, melted the Dylan lyric into a Beatle-like arrangement, thus coming up with "folkrock." Dylan followed suit, giving up politics and adopting an electric rock band, a move which severed him from his folk music mentors and the Old and New Left. In his song "My Back Pages," Dylan dissents from those who see songs as "a cry for justice" and Left-wing ideology: Dylan's new popularity among top forty audiences, as well as that of the Byrds, produced a number of imitators who tried to combine rock music with protest songs. Among them, the best-known example is ex-Christy Minstrel Barry McGuire, who recorded "Eve of Destruction," a denunciation of the hypocrisy of the older generation and a statement that if conditions did not improve, nuclear annihilation was around the corner. Despite the sales of this controversial song, few other blatantly political songs have been commercially successful. Indeed, overt political propaganda songs today are more in the realm of novelty items, both right and left, than effective songs of persuasion. In recent years only John Lennon and Yoko Ono's "Give Peace a Chance" has gone from the political arena into the top forty. As we have seen, rock music during its formative years incorporated a number of deviant elements from American society into a vehicle of the mass culture. Yet, the popularization of rock music was in a particular generational unit rather than the entire population, which in many instances did not exhibit atomization.

Hippie Influence on Rock

In the later part of the sixties rock music was strongly influenced by

events in the emerging hippie movement, the model of the counter-culture, with its stress on mind-expanding drugs. In the drug culture, politics were deemed insignificant. What were important were the weekend "happenings" at the Fillmore Auditorium and the Avalon Ballroom. At these events one was exposed to a total experience in mixed media. Rock music for the hippie cult was a religious experience in the tradition of William James and Aldous Huxley. More significantly, the music became a symbol for social alternatives, that is, a counter-culture. The music for both generational units became an expression or Zeitgeist of the rejection of deferred gratification and of limiting traditional rites of passage. The music's trancelike quality was viewed as deterring students from scholastic achievement. Songs such as "White Rabbit" were described as urging listeners to drop out and into the drug culture. Most studies of rock music have converged upon the musical message of individual freedom, doing one's own thing, or the hang loose ethic. The freedom of choice in rock numbers is both anti-intellectual and anti-ideological. Only a handful of rock musicians, it would appear, have strong political commitments or views which are translated into their songs. Country Joe and the Fish, the Fugs, and the now defunct Mothers of Invention were the overtly political in the rock genre.

Subversive Themes in Rock?

Despite the lack of political sentiment expressed in most rock songs, spokesmen of the older generation see the music as politically and socially subversive. The stress upon freedom and choice, cited by most observers as major tenets of the American Creed, has been described as statements of hedonism and license. In recent years, rock music has come to be viewed as politically dissident and morally subversive. As we have seen, musical styles in the last two decades changed with a rapidity not previously experienced. It appears that as musical changes occur, greater concern is expressed by those wedded to genres of the past.

During the folk revival, this "youth rebellion" came to be seen as subversive by conservative groups. More recently, adults have objected to rock music as an advocate of drugs and anti-establishment attitudes. The older generation's view of music has several fundamental historical roots. The first root is the austere religious notion that nonreligious art is sinful.

Rock and roll, as well as rock music, appealed to young people; neither appealed particularly to the adult generation, although rock music, given its more ideational or intellectual quality, does appeal to a wider age range than its forerunner. The generational conflict over music in the 1950s revolved around the representative and symbolic aspects of the music as well as its shady origins. The generational conflict of the present era no longer touches upon issues of symbolism or musical structure or the appearance of performers, but rather the debate focuses more on the lyrical content of the material.

We have suggested that the counter-culture may be a more fruitful area of investigation vis-a-vis generational units. Moreover, rock music is an important factor in the life style of the counter-culture and, indeed, the entire generational unit.

Generational Units: Music and Political Attitudes

The preceding discussion suggests a number of hypotheses, of which two are paramount: (1) differentiations

between generational units will be greater than in intragenerational units; (2) differentiations, if the counter-culture thesis is correct, will be greater between generational units in the sphere of rock music than in political attitudes. The first hypothesis is addressed to establishing the notion of generational units as being similar, rather than diversified, internally, and externally in opposition to the older or previous generational unit. The second hypothesis involves testing for greatest area of generational conflict, if any, in the areas of politics and music. If generational conflict is greater between two generation units, and music is the main area of dissension, we may then suggest that the counter-culture thesis may be more descriptive of the current generation than the political socialization studies.

In 1968 a random sample of 444 secondary school students and dropouts was drawn from a city in the metropolitan area of Vancouver, British Columbia. The ages ranged from 13 to 19. According to some observers this age range is central to generational conflict and support for the counter-culture.

To facilitate a comparison of generations, 121 parents of those students and dropouts already selected were questioned. Along with the parents, 36 teachers and administrators from the schools covered in the sample were queried, bringing the total adult sample to 157.

Intragenerational conflict does not appear significant in either political or musical areas. Students do not tend to favor any particular political party more than their dropout counterparts. In musical tastes the differences between students and dropouts also were not significant with a majority favoring rock music. The parents and teachers had no significant difference in their political preferences as a generational unit.

Parents and teachers by-and-large did not like rock music, while their offspring overwhelmingly supported this musical genre. Respondents were also questioned with the aim of testing our second hypothesis dealing with counter-culture, namely, that differences between generations will be substantially greater in the area of music than in politics. The data show that generational differences are exceedingly prevalent in terms of the musical tastes, while such is not the case with reference to political preferences.

These findings from a nonelitist sample of secondary school students and dropouts indicate that political preferences between generational units are pretty much the same. Significant differences in so-called cultural areas are observable.

The significant finding, however tentative, is that generational conflict may involve more than just the political sphere generally treated by those observing youth movements. As such, much benefit may be derived from looking at the cultural trends in youth culture such as music, films, and other experiential aspects of what may be a growing counter-culture.

Issues in the Study of Generations

LILLIAN E. TROLL

Everybody is talking about generations. But little that is said is clear or clarifying. In part, the confusion is semantic. There is also confusion in the dimensions of analysis, e.g., generation sometimes refers to structure and at other times to process. This paper is offered as an introductory attempt to recognize the various strands and untangle them.

Five Definitions

The first step is a semantic analysis. Five concepts can be isolated.

Generation as ranked descent—This meaning has its locus within the family or quasi-family. Such generation rank may be traced from a long-dead ancestor, or dynasty founder. This usage is obsolete; it has little relevance outside geneological studies. In current usage, rank is traced from the oldest living ancestor. In the former case, rank is obtained by counting from a significant person; in the latter, it is derived by counting from an index person. Throughout this paper, the index person will be taken to be the oldest member of the family.

Generation rank is independent of age. A second-generation family member may be anywhere from 2 seconds to 82 years old, a group of 20-year olds may include people anywhere from first to fourth generation. It is a contingent designation. A person's rank depends on the survival of his parents and grandparents. He can be second generation on Monday and first generation on Tuesday. It can provide identity and role within the family, but this identity may have little generalizability to nonfamily relationships. How many of our associates can we classify in ranked-descent terms?

This meaning is difficult to assign in practice. If a person has a paternal grandfather, a paternal great-grandmother, a maternal grandmother, but no maternal grandfather living, is he first, second, or third generation? There can be other difficulties. Husband and wife, and siblings, tend to be of an age. But this is not universally true. Are a husband and wife the same generation if they are 20 years apart? Is one of the same generation as a sibling who is 20 years older? In countries where men marry late but take young brides, their children may be second generation in the male line but fourth generation in the female line.

Whether one is first, second, third, or fourth generation depends on such factors as longevity and fertility. Short-lived families with high fertility can have three generations at once. Long-lived families with high fertility can boast of five or six generations. A long-lived family with low fertility may come out with the same number of generations living as short-lived family with high fertility.

In spite of such limitations, generation as ranked descent continues to be a central variable in studies of the family.

Generation as age-homogeneous group—This generation concept has relevance primarily to the social system. It cuts across family lines and verges on subculture status. An age-homogeneous group includes all people of the same age who share a common set of culture characteristics, who

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perceive themselves as belonging together, and who are recognized as belonging together by the rest of society.

A distinction should be made between lifelong age groups and temporary ones. In the lifelong age-group generation, membership and identity are maintained throughout life. Even though the members get older, they continue to belong to the group into which they were born.

All people living at the same time do not necessarily share the same history. Critical events have hit them at different points in their life cycle and affected them in different ways.

The function of the temporary age group seems to be that of easing the transition from one period of life into another that is different in relationships and expectations. It is most frequent in youth, during transition into adulthood or full membership in the society. Once adult status is reached, the group disintegrates and its members merge with other adults.

Present-day youth groups cut across family lines and other boundaries as well: sex, social class, and national. They may be organized and structured, though this is not common outside of such institutions as street gangs. To the extent that age groups become isolated and autonomous subcultures, they could be regarded as social breakdown phenomena. A functioning social system should presumably incorporate everybody—or almost everybody. It may be that it is the presage of disorganization of our culture that underlies the anxiety today, expressed in the preoccupation with a putative "generation gap."

Current discussions tend to bifurcate the population at the point of adulthood into a single older generation which is pitted against a single younger generation. The transition into adulthood appears to be the most age-divisive period of life. Yet it is not the only major transition point. Are there some societies that also recognize the transition from middle age to old age—or from adulthood to old age—as a critical time, and have developed institutions such as age-homogeneous groups to ease that transition? If this has not occurred in the past, is it likely to occur in the future, with longevity now a factor to be reckoned with?

Generation as developmental stage—Generation as developmental stage is partially tied to chronological age, although not everybody of the same age is at the same stage of development. Age group applies to social status, to social transitions, and to groups, but developmental stage applies to individual status (adolescent, adult, middle age, etc.), to life-cycle transitions, and to individuals.

Developmental stage is likely to be applied to periods other than youth. The "middle-aged generation" is compared to the "old age generation." Bifurcation into two-part systems is common. The adolescent-adulthood transition is the developmental stage analog to the preadult-adult transition in the age-group schemata. The former is marked by an identity crisis, the latter by a social crisis. Yet, while the individual's passage from adolescence to adulthood may underlie much of the Youth group-Establishment confrontation, it is desirable to keep the two concepts distinct.

Because an age group is primarily a social phenomenon, a particular age group is a unique occurrence. There will be only one Depression generation (for that depression). The developmental stage is a social-psychological-biological phenomenon. There is always an adolescent generation. When one group of adolescents moves to adulthood, another group takes its

place, although tomorrow's adolescents may not repeat the cultural characteristics of today's adolescents.

Generation as time span—The German and French sociologists who studied generations at the beginning of this century were impressed with the evidence for a 30-year unit for social change. Because this corresponds roughly to the number of years between parent and child, it came to be used as a unit of social change around which to build generation theories.

Today generation time span may not be a fixed unit. Accelerating social change has made it strategic to consider a shortening time span. Some say that generations are no longer appropriate units for social change. An age cohort or time span of 3 or 4 years may be more meaningful. This shortening may be related to such factors as age of sexual maturity and age of marriage, or social maturity.

While time span is a uniform measuring unit for age groups and for ranked descent, it is a variable one for developmental stages. There is a constant distance of 20 or 30 years (or 3 or 4 for age cohorts) in the first two cases. But infancy might be a 1-year span, adolescence a 10-year span, and middle age a 20-year span. Except in a binary system (before and after maturity), developmental stages cannot be fitted into other generational schemata.

Generation as Zeitgeist—To the European sociologists early in this century, the concept of generations was an appealing combination of explanatory principle and measuring unit for social change. Their concern was for content rather than structure. What characteristics distinguish one age from the next? They studied style—in the arts, behavior, politics. Thus, those current writings on "generation gap" that consist of descriptions of the dress, morals, and manners of "hippies" are within this tradition.

While a Zeitgeist might belong to one age group—the "hippie" culture, for instance—there is communality in all the Zeitgeists existing contemporaneously. The hippie culture is uniquely that of the teenager, it is true, but it has spread its influence to all ages. It can only be understood if viewed in the perspective of suburbia, the Organization Man, black militants, the democratized university, and the stereotyped recreational pursuits of the elderly. No generation is totally different from its predecessors and successors.

Family and Society Issue

Each individual has generational identities in his family and in society. These identities may be congruent, independent, or out of phase. A youth of twenty, who is third generation in ranked descent, a "hippie," and an adolescent in social maturation, could be considered synchronous or congruent in generational statuses. If he had been first generation in his family, he might have been expected to have more adult status and his "hippie" membership and culture might be inappropriate. If he had been third generation, an adolescent in social maturation, and untouched by the Zeitgeist, he would have been equally incongruous.

Generational status in the family is ascribed and contingent, in society it is likely to be achieved and noncontingent. Generation as ranked descent is the most appropriate generation concept for the study of the family. Generation as developmental stage is also relevant. Grandfather is a ranked-descent ascription, but the significance of the role of a particular grandfather in a particular family is partly deter-

mined by whether he is middle aged or old.

It is within the family system that the issue of generations is perhaps most relevant, personalized, and acute. Here, the greatest differentiation of generations is seen. Each rank of descent and each developmental stage is likely to be recognized. Young-adult status is different from middle-age status, and middle-age status is different from old-age status. Each stage of childhood has its due. In the larger social system, there may be only two significant generations: those who are not full members of society (children and old people) and those who are. Even with respect to the transition into adulthood, the family, being an age-heterogeneous system is more likely than society to recognize this as an event of importance.

Three dimensions of analysis—At least three dimensions apply to the study of generations in the family: the number of generations alive; the relationship between these generations, and the degree of transmission of family culture from one generation to the next. To illustrate, one family may consist of the two parents and their children. The family members are in close touch with each other and are alike in many ways. This could be the mythical peasant or pioneer family. The parents die before the children become parents. They belong to a stable, traditional society, work hard, and don't take care of their health.

Another similar family could exist under conditions where great change in culture would occur from one generation to the next, without those who are changing losing their close relationships with those who haven't changed. It might be the "ideal" immigrant family.

In another type of family, members don't see each other much, either by design or necessity (the children have gone to California and the parents stayed in Iowa, or the parents moved to Florida and the children stayed behind). In spite of lack of relationship, the children are much like their parents. This could also be the situation of rebelling college students whose values are essentially those of their parents. A fourth type might consist of alienated students and their parents, who would also be somewhat alienated. And a fifth might be like the "pioneer" family but with grandparents added to the loving circle. And so on.

Effect of multiple generations—The growing frequency of multiple-generation families may be a contributing factor to the increasing interest in the topic of generations. One result would be a more complex pattern of status and power gradients and balances than in two-generation families. A number of hypothetical power alternatives can be postulated:

Power lies in a member of the oldest generation and remains there until he dies.

All adults can be essentially equal in status and power.

There can be a sharing of power by the second and third generations, over the relatively powerless first and fourth generations.

There can be a bifurcation of power gradient, with the third generation dominating the fourth and the second generation dominating the first. Possibilities of confusion and disharmony are increased, perhaps family disintegration.

In primitive societies, where social organization is not too different from family organization, a strong individual could mantain power throughout his life. In more complex societies, such control is unusual. Parental

power may continue through interpersonal influence, or where the individual's ascribed power position in the family carries over to social roles and interactions outside the family—as in family business empires.

Another result is phenomenological. Man feels different to know that he is the oldest generation, next in line for death, as contrasted with knowing that one or more generations stand between him and death. The effect of increased longevity can be seen in society as well as in the family. The number of generations making themselves felt at any one time must have effects on the complexity and depth, and ease of organization of the culture or society.

The influence of the number of coexistent generations is tied to that of the relationship between generations. Where family boundaries are tight and organization strong, the differentiating influence of more generations should increase.

The Issue of the Individual

From the point of view of the individual, the problem of generations is that of *identity*. It makes a difference whether one is first generation in one's family and therefore close to death, or third generation and well buffered in that respect. It is in the individual that the linkage between age groups and stages of development is clear. The youth group's function is to ease the transition between adolescence and young adulthood. By means of generational models, the individual's biological age changes can be incorporated into meaningful psychological identities.

"Generation Gap"

There are three approaches to the idea of "generation gap"—the "great gap," "nothing really new," and "selective continuity." There is also a "generation gap" in attitude toward the "generation gap." People around 20 seem to opt for the "great gap"; those a generation older prefer the "Nothing really new"; and those between, the "selective continuity." While the older generation may claim there is nothing really new, its preoccupation with the subject is apparent. Its need for denial is as interesting as the 20-year-old's need for change.

Types of "generation gaps"—It seems desirable to sort out some dimensions of the problem. A priori, these seem to be (1) difference between generations, and (2) amount of effort or affect involved in the transition from one age-group or developmental-stage generation to the next. A combination of these two dimensions produces four types of "generation-gap" situations.

The difference (or similarity) between two generations is a function of the amount of transmission of values and other culture characteristics from one generation to the next. Where transmission is high, the "gap" is small. The greater the transmission and smaller the "gap," the easier is the transition. If the gap is great, the transition approximates a qualitative change, or metamorphosis. The prime "generation-gap" question is, does the present-day youth need to undergo metamorphosis to become an adult? Or, does the culture or value system of present-day youth differ so widely from that of the adult society that a revolution would be needed before youth could see itself as adult?

The most serene situation is when the gap is minimal, transmission high, and amount of conflict, hostility, or effort low. From the group point of view, this would be the situation referred to by orators at high school graduations as a "passing of the

torch." We see it when life is easy and cultural uniformity high. The corresponding individual situation is an easy, smooth development. This situation is easier to visualize during childhood or during maturity than between adolescence and adulthood. It is more likely where change is felt as upward in direction.

A second situation deals with endings. One is a quiet end of an era and beginning of a new Zeitgeist. The gap between two generations is large, but there is no intergenerational conflict or effort expended. This is the world view of the "hippie" or "flower children." The gap is higher than they care to jump. It doesn't matter whether anyone makes the transition; adulthood is of little value. To the extent that the adults adopt their value and culture system, the meaning of generation Zeitgeist is at its widest: it encompasses the entire "generation" at that time, separating it from all previous living "generations." This great cultural discontinuity may reach the point of disintegration of the social system. Presumably, a new system will evolve.

In a third situation, high transmission of culture (low gap) is combined with high conflict, affect, or effort. For the society, there is a "palace revolt" or severe power politics; for the family, an attempt by the son to oust the father from leadership. For the individual the effort to go from one developmental stage to the next is large and may describe a situation of "individual agony" to the point of personality maladjustment or disorder. On the other hand, this situation could also be viewed positively. The young could be "letting off steam" so as not to become dangerous to society (change the system). Many psychoanalysts feel that no adolescent can become a man (like his father) until he goes through some violent opposition to him. Many adults prefer to interpret the "generation gap" this way.

A fourth situation is the most explosive. High gap and high conflict lead to social revolution or to individual metamorphosis, to abrupt and qualitative change. This is the goal of the young activists and the fear of the Establishment.

The point of this analysis is that there are three kinds of "generation gap." All three kinds are present in the American scene. But whether there is a shift from the second or third to the fourth should only be answered with more evidence than we have available. The data on similarity in values between college students and their parents and particularly of left activists and their (largely nonactivist) parents contraindicate such a conclusion.

The Issue of Change

Some people, and most revolutionists, believe that all change is for the better. This is true of most youth cultures or age groups. The way of the fathers is so rotten that change is necessary, and by definition better. But it is possible to take on the way of the fathers with little change. The king is dead, long live the king—but there will always be a king. Thus change need only be that of the person holding the power. If change is necessary to signify power, it need not be the creation of something new; it may be the revival of something old. Generational change may be progressive, regressive, sometimes just different.

Sometimes we get the impression of generational change when we are really witnessing historical change. Or, some change can be of the generation of all the people living at one time rather than of a youth group generation in transition to adulthood, al-

though it is among the youth that one finds the "forerunners" of the entire generation, in the sense of all-alive-at-one-time or all-who-will-share-the Zeitgeist.

Mention was made of the effect of synchronization between the biological pacing of development and the social rhythm. Where these are synchronized, transitions should be easier. Today we are witnessing an acceleration of social change and biological maturation. Does this have anything to do with the difficulties of becoming an adult? Perhaps we are experiencing a temporary desynchronization which is being reflected in the transitional crises called the "generation gap."

In an age-heterogeneous system, such as the family, roles are allocated and individuals obtain identity on the basis of age. This system has validity where experience, strength, and wisdom come with amount of time lived. But in most industrial situations, it is specialized skill and knowledge that are desired. A man with special ability can acquire these in a few years whereas a man who has been on the job for many years may be incapable of achieving them.

In the Western world today, the ages incorporated into age-heterogeneous systems are young children and their parents. Others are outside the boundaries: nonparents, youth, and older people. It is the transition from a system where age is an important variable to one where age is irrelevant that is difficult. And it is to facilitate this transition that youth groups arise.

Implications for Life Span Development (Gerontology)

Most current obsession with generations has a high-intensity focus on the point of transition from adolescence to adulthood. One purpose of this essay is to stand back and examine some ideas about generations from a life-cycle point of view. Another purpose is to point out the importance of the variable of generations to the study of adult development and aging.

Crisis points and transitions—Although the transition to adulthood may be the most critical developmental step, it is just one of many transitions. Those after adulthood have received little attention. Even less attention has been given to the coordination and interrelationship among all stages and transitions of a lifetime.

One difficulty in trying to arrive at a life-span developmental theory is the approach of universality. To limit the scope of development or the number of stages to what all individuals achieve is contrary to observation and logic. Not only the number of stages, but also the ease of transition to each new stage vary with a number of factors, such as the coping ability and potential of the individual, complexity of the social order, length of the life span, and freedom for continued growth (or self-realization).

Individual differences constitute the substance of much psychological research. There is precedent for postulating individual differences in developmental potential. Some people, presumably, can never reach the "higher," more complicated levels that other people can attain. Universality cannot be a criterion for acknowledgement of these stages. As for coping ability, those who have difficulty passing through earlier transitions probably will not reach later transitions. There is some evidence to suggest that successful transition of past stages is a relatively good predictor of success in future transitions.

As a society gets more complex, the people who can fit into that society must become more complex. They

must be more differentiated and integrated at a higher level—have arrived at a higher stage of development. In a simple society, it would be theoretically possible for a 10-year-old to have developed sufficiently to function as a full member of society—an adult. In a complex society, one may not be able to become an adequate adult until one is 35 years old. A corollary would be that social aging might vary inversely with the age of onset of social maturity. In a simple society, the 10-year old's skills might be of such an order that a 70 or 80-year-old could perform them. In a complex society, the social skills of the 35-year-old can be obsolete in 10 years.

To summarize, *if* our social system continues its trend toward greater complexity and *if* the life span continues to increase, and *if* there is no swing back into repression and tyranny, then we can anticipate a flowering of adult stages and an accompanying multiplication of transition points. Countering this prospect are two trends. The first is the hypothesized negative correlation between complexity of social system and age of obsolescence of social skills. However, this effect may belong to rapidity of social change rather than to complexity of the system. All the potential for increased development of the individual can be suppressed by the lack of relevance of such abilities to the dominant values of the society. For instance, so long as work values are dominant, most older people will not "realize their potential."

The second trend is not necessarily a countering movement. If there is a positive relationship between ease of transitions at various times of life, then there may be repeated "agony" in the future developmental crises of the youth group—provided it ever gets past the present adolescent-to-adult transition. Potential may never be realized because everybody stays preadult. On the other hand, a new, perhaps leisure, culture may evolve in which the potential of individuals may reach levels which we cannot imagine today.

It is interesting to separate the speed of development from the final level. Incidentally, to study highest levels, one has to focus on the later years of life. The separation of speed and level in the study of children is difficult. Most measurements of children's potential, in fact, have used speed as a predictor of final level.

If we examine ethnological data, would we find that some societies have critical transitions at adolescence-to-adulthood, but others show smooth passage at that point and traumatic transition at other points? If so, it would be interesting to see what characteristics of the society were associated with what transition-point difficulty. Is it a matter of discontinuity? If so, we should find little transitional difficulty in a society whose values were work-oriented throughout life (half a century ago in America) or leisure-oriented throughout life (what we may be approaching).

It would be interesting to study transition as a process. How can we tell when a person is ready to move into the next stage? What are the steps of the move from one stage to another? Are there resting periods between transitions? Is it possible to separate one transition from another, since humans are continually in the process of development?

Here we should consider generation as time span. Does decrease in time span reflect an increase in number of stages and transitions? Can time span serve as an index of developmental change? When change is faster, is individual development also faster—and

greater? It may be that rapid social change is concomitant with frequent transitions in individual development. Since the individual has to adjust to the social change, there is justification for postulating a related individual change.

One way of measuring transitions and time span could be through the individual's sense of time. If sense of time is related to stage of development, it would be worth investigating such hypotheses as a contraction of time sense during transitional periods and an expansion during "resting" periods.

Finally, one's developmental level may serve as both an individual and a group identity. The feeling of isolation of the man "ahead of his time" may lead him to seek communality with other highly developed people in other times and places through their communications in writing, music, and art. The science fiction "cult" is an example of people who are advanced in scientific speculative development.

Generation rank as identity—As one grows older, his chances of becoming of the first living generation in the family increase. Yet, with increasing longevity, there must be more 80-year-olds who are second generation. Gerontologists have studied such variables as identification as old, life satisfaction, and time and space perspectives without considering the factor of generational rank.

A significance of being first generation is nearness of death. The other is becoming head of the family. Which of these two feelings predominates must vary. Presumably it feels good to be head of the family but bad to be the next to die. If the head of the family is a second- or third-generation person and being old is being superfluous, identification as old or as first generation of the family can only mean something bad. The exception would be in religious cultures where being near to death has positive value.

The death of parents or grandparents could be as critical a transition as those involved in generation as developmental stage. The death of parents is a more significant crisis than the death of grandparents because it denotes the dissolution of the buffers between the individual and his own death. However, if it is the effect of a buffer that is important, death of parents would be less traumatic when grandparents are living.

First-generation rank is not synonymous with the phenomenological sense of being head of the family. Where the old are diminished in power, the extended family leader could be second or third generation. Or power may reside in ghosts. A member of the first generation who is putatively head of the family could feel dominated by his dead parent or parents. Can we say that ancestor worship does not exist in our society?

We have talked about the number of ascendants. It is conceivable that the number of descendants is important. Being first or second generation may have different meaning to a person who has no children from one who has grandchildren or great grandchildren. Is one more likely to find it difficult to "feel first generation" if there are no other generations behind? Does the existence of children and grandchildren reduce the possibility of dead parent "ghost power"? Does the possession of nieces and nephews, and grandnieces and nephews, have the same effect as having children and grandchildren? Is the extended family a viable entity, phenomenologically as well as interactionally?

Age subcultures—Most gerontological literature lumps together people

over 65. While there has been some tendency to separate those over 75, this has been on the basis of the health-senility dimension. People between 65 and 75 may not see much similarity between themselves and those older than 76. Actually, such lumping may be more justified on a family ranked-descent-generation basis. Sixty-five-year-olds who are first generation in their families may see themselves as having more in common with 85-year-olds than with 65-year-olds who have living 85-year-old parents.

Tempo of social change—Most generalizations about aging are based on data collected within such a short space of time that they are information about one time-span generation. With the acceleration of social change, many generalizations may have to be revised. Theories of disengagement, dependency, mental and physical health, etc., may be invalidated in another 20 or 30 years. Of course the issues are bound to be different. People's expectations for change, based on the tempo of change in their past experience, is related indirectly to their conservatism or "rigidity." If one is accustomed to a slow rate of change, then one is not prepared to accept a markedly accelerated rate.

Because the development of any living system is marked by transitions from an earlier and usually simpler organization to a later and usually more complex organization, the concept of generation can be treated as a kind of stage. Ranked descent is a kind of family stage, age group is a kind of societal stage, and developmental stage is an individual stage. Using individual development as the model, it appears that some transitions are more critical or more difficult than others. In most societies, the transition into adulthood seems to be the most critical and difficult. It is the point of convergence of individual and social change. Individuals becoming adults are the "forerunners" of social change. However, individual metamorphosis should not be equated with social revolution. We have reason to believe that many radicals, who are in the forefront of social change, are making a smooth generational transition, both in terms of ease of becoming an adult and in showing a good amount of transmission of values and other personality traits from their parents.

Perhaps what is needed is a partial return to the focus on social change. But this time we should look at the development over the whole life span. What are the similarities and differences among the different transitions occurring throughout the life of the system? Are there other transitions that are as difficult, if not as critical, as that into adulthood (e.g., pre-industrial to industrial or rural to urban)? Is there a positive correlation within the individual between ease of transitions: Do some find them all easy and others all difficult? Is there a secular trend in ease of individual transitions that can be related to stage of the family or society development?

Note: This review article has an extensive reference list; citations are not given in this condensation.

Adolescent Sexuality and the Struggle Over Authority

WARREN J. GADPAILLE

School health personnel whose work casts them into contact with adolescents recognize that sexuality is omnipresent in adolescent life.

Still more than being an end in itself, sexuality can serve all manner of nonsexual ends. Adolescence is also the crucial phase during which one comes to grips with authority, and learns to move into positions of responsibility and authority. It is inevitable that sexuality often becomes a vehicle for the expression of a youngster's attitudes about and toward authority. Unless one understands something of these nonsexual uses of sex, a great deal of teenage sexual behavior will appear incomprehensible if not irrational.

General Principles

Sex in the service of authority concerns can be described on three levels: In the relationship with cultural authority; in the relationships with parental and interpersonal authorities; and in the aspirations toward personal autonomy (intrapsychic authority).

Every culture shapes the ways in which this use of sexuality may be made by defining the relationships between sex and authority. In middle-class United States culture, overt sexuality belongs to authority, and authority belongs to legally defined adults. Sexuality is treated by adults like a possession; it is withheld from youth, and is represented as a reward, a fringe-benefit of authority status, to which youth should aspire. The right to indulge in sex is granted more or less grudgingly, and only after youth has agreed to pay the price of accepting the ground rules for sexuality as laid down by authority.

The overt means by which adult-authority maintains its possession of sexuality include the prohibitions applied to adolescents, the inhibition of childhood sexuality, and the rituals for gaining access to sexuality. These rituals demand allegiance to the principle that the authorities own sexual rights. For example, getting married as a means of gaining sexual rights is tacit acceptance of the dictum that marriage is the proper way to legitimize sex. The marriage ceremony perpetuates the authority ownership of sex because the young couple has identified with and become part of the authority structure.

There are subtle and covert techniques by which this status is maintained: One is the belief in the sexual innocence of children. This is facilitated by a kind of agreement between the adult world and the private child world which is unspoken and not consciously recognized: Adults agree to pretend that children are asexual and let them alone, if children agree to keep their sexual interests and activities secret. Another means is the pretense that overt adolescent heterosexual activity is exceptional rather than frequent. These pretenses allow adults to define child and adolescent sexual behavior as manifestations of sickness, disturbances, perversity, or evil. These maneuvers are supported by adults' capacity to forget their own early sexual behavior, or retrospectively to consider it bad.

The principle is not restricted to our culture, as witness puberty rites as initiation into adult-authority status. But in our culture, two conditions

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lend it special characteristics: One is that sexual tabus at all subadult levels are almost uniquely stringent. The other is that we have one of the longest periods between puberty and socioeconomic readiness for marriage—a time when sexual drives are extremely intense, yet abstinence is the ideal. This refers to all forms of overt sexual behavior, not simply to procreation. The problem areas in our attitudes toward adolescent sexuality focus more upon sexual behavior than upon reproduction. If this were not so, society would welcome the technological ability to prevent conception during adolescence, instead of regarding it as a source of unleashed sexuality.

In addition to these sex-authority associations, the most influential models of sexuality and authority are a child's parents. Their sexual interaction and the family power structure exert influences at interpersonal and internal levels.

There is an endless variety of polarized dimensions along which adolescent sexuality may be considered. A few are:
masculine-feminine
defiant-compliant
active (aggressive)-passive
mature-immature
responsible-irresponsible
conscious behavior-unconscious

We will limit our consideration to some of those dimensions most relevant to the internal and external struggles with authority.

Sex and Cultural Authority

The defiance-compliance continuum is the most obvious. Many youths accept the traditional definitions and assumptions. With little conflict, they utilize rituals to join the ranks and achieve the prerogatives of authority. Among such young people, overt challenge of authority possession of sex is minimal, and compliance is offered in return for social and conscience rewards. In many such youths parentally derived prohibitions rather than self-determined standards remain the basis of their value systems.

However, on every side, one observes increasing defiance of authority ownership of sex. One form is refusal to wait for adult status or to comply with the rituals to achieve sexual rights. There is difference of opinion whether or not there is an increase in adolescent sexual activity including intercourse; my experience makes me agree with those who see an increase. Another kind of defiance is the refusal to *pretend* to wait. This destroys the belief that youthful sexuality is rare, and challenges the definition that it is disturbed or perverse.

A most telling defiance is the refusal to accept the social consequences of overt sexuality. Such consequences exist only when youth and authority agree to treat them as real; they fade when one or the other no longer accepts their reality. An example is social ostracism as punishment for "unchaste" behavior. Many young people live in a community of peers, where virginity is irrelevant as a criterion of approval or disapproval. A clever defiance is mocking the authority position by acting literally upon ideals with which society would agree, but by which it does not live: "Make love, not war." This not only "usurps" the sexual rights of adults, but makes them look silly and hypocritical.

The repudiation of authority ownership of sex may be expressed by defying or redefining sex-related phenomena. In terms of the polarized opposites some examples are:

Active-passive: Activism by girls, passive protest by boys; active pursuit of boys and sex by girls, women's demand for equal orgastic and sex-free-

dom rights, acceptance of nondominant and "house-wifely" roles by men.

Masculine-feminine: Long hair and adornments on boys, nonseductive clothing on girls, the "unisex" look (which began some years ago among teenagers).

In these examples, there is a negation of adult expected stereotypes and compliance, and an assumption by youth of the right to define and pursue sexuality in their own ways. Thus sex is a potent means, often a powerful weapon, with which adolescents cope with authority.

Sex and Parental (Interpersonal) Authority

Parents are the most significant others as models of authority and as sexual beings. But the wider culture and the microculture of the family are seldom identical. Individual differences derive from the highly personal ways in which a youngster's parents handled and expressed their own sexuality and authority.

The gender and sexuality of the parent who has the more authority, and that of the more submissive parent, serve as object lessons for how authorities use sex and how sex is used on authorities. Depending upon who uses sex how and upon whom, sexual identity can become intermingled and confused with power identity. Such sex-power constellations run the gamut from the pathological and pathogenic to the healthy and mutually supportive-considerate relationships. Some sex-power prototypes to which children are exposed are: sex is loving and considerate (in which there is minimal power contamination of sexuality); sex is coercive-exploitive (in which sex is used to gain and hold power); sex is cruel and violent (in which sex is used to display the power to hurt the weaker partner); sex is perfunctory and physical (in which sex is used to deny the value and defeat the power of the partner); sex is actively negated and derogated (in which nonsex is used as a source of power); sex is masochistically endured (in which guilt is coerced in order to wrest power from the ostensibly more powerful).

The sexual behavior of an adolescent may be a parody of the same-sex or more powerful parent, a defiance of the more authoritarian parent, a healthy identification with the appropriate parent, or a healthy rejection and differentiation from disturbed parental power-sex models.

Teachers and school personnel are usually lumped together with parents until proven otherwise, and parents have generally been sexually suppressive. Adolescents can predict that any overt sexual behavior will produce a gratifying degree of consternation in the adult ranks. In an effort to break away from parental restrictions and establish their independence, youngsters will often indulge in an exhibitionistic display of everything from hand holding to heavy petting in the halls, not only because it is fun, but because of their anticipation of the response it will get from adult on-lookers.

A way in which sexual identity and authority concepts can become neurotically confused might arise in the male child of a dominating and sexually denying mother and a weak but sexually promiscuous father. The urge to grow into a role of some authority is emotionally associated with nonsexuality and a female identity, whereas the biological drive toward sexual activity is associated with passivity and lack of authority. The neurotic permutations of such a power-sex constellation are almost endless. One solution might be the boy's adopting the "sex

is cruel and violent" pattern to satisfy his sexuality while defeating and remaining free of his controlling mother.

A healthy handling of the sex-authority complex at one level does not necessarily render the other levels trouble-free. An adolescent from a non-restrictive "sex is loving and considerate" family may proceed to act upon that concept in school, and run afoul of the adult-authorities.

Sex and Autonomy (Intrapsychic Authority)

By autonomy, I refer to the result of an internal emotional development, a slow maturation of the ego, which eventuates in the capacity to make decisions and regulate one's own life and affairs with appropriate attention to external reality and internal needs. This is intrapsychic authority, and is a prerequisite for the rational exercise of interpersonal or cultural authority. On this internal level, the years required to arrive at functional reproductive capacity are also the years of critical ego formation and deformation. And it is during this period when both sexual and power-authority attitudes are developed and become associated with intense emotions, some of which are unconscious.

There is a lengthy progression from childhood dependence and lack of judgment to adult autonomy and capacity for authority. This progression follows a different timetable in our culture than does physiological sexual maturation. The fact that these two aspects of life develop out-of-phase with one another induces stresses and conflicts over and above those which are inevitable in psychosexual development. It can cause difficulties in integrating sexuality with the assumption of authority and its responsibilities.

A delay in development of normal sexual interests may betray a wish to deny or avoid oncoming authority and responsibility, an unconscious effort to remain a child. A rush into heterosexuality may be an attempt to deny the reality that adult sexual function and the assumption of adult responsibilities are linked. In some cases of irresponsibly premature heterosexuality, the behavior may represent conflicting unconscious attitudes: on the one hand, a demand for adult status for which the ego is unprepared; on the other, a prolongation of childhood by treating sex as a form of play. This is one reason why adolescents so frequently ignore the possibility of pregnancy.

Adolescent use of sex as a vehicle for coping with authority is by no means always pathological. Adolescents are normally progressing into heterosexuality. Some cultures and some child-rearing practices—ours included—force adolescents to defy prohibitions in order to exhibit normal sexuality. They thus incur automatic definition as being sick or bad by the defining authorities. Adolescents may be forced into genuine abnormality by the inaccessibility of normal, guilt-free sexual channels and outlets. It may, in fact, be the definitions that are sometimes inappropriate, and the adolescents who are sometimes normal.

It Makes No Difference Now

ROBERT SCHRANK

"It Makes No Difference Now," the name of a country western song, seems an appropriate description of a new attitude in the workplace. We have heard from the students, the minorities, the women; now from the workforce—maybe not all 80 million but a good part of it, particularly the young. What used to be referred to as alienation has turned into a more difficult problem that I call indifference.

Employers complain, "the unemployed won't take low level jobs; nobody wants to do the dirty work." And why should they? Since technology's takeover, society has formed an invidious image of the manual worker as the one who didn't make it. The ghetto argument that the bookie in a sport shirt, driving a Continental, is a greater success symbol than some poor black man working for $60 a week, is based on this change.

Job specialization is another change that has accelerated. The ultimate in scientific management was an attempt to program the activities of individual workers down to the *n*th degree. This contribution of scientific management teams speeded mass production. The fact that it also increased worker alienation has been well documented.

However, employee indifference seems to go beyond the alienation we have read and heard about. The dissatisfaction which was endured in relative silence now gets acted out as indifference to the motivational efforts to get people to produce. What brought about the transformation?

I suggest that the following are some of the critical reasons. There is the new labor force. They confound personnel interviews. They don't accept traditional supervision. They are not easily threatened. They don't accept union leadership. These are the youth who have gone to work in the last decade. They are bringing their youth culture to the workplace. They have more years of schooling. They have grown up on television and the credibility gap. They are less authoritarian than their fathers. Most of all, they do not seem anxious about job security.

Second, our society is basically future oriented. We derive our status more from present life style and future potential than from past accomplishments. As more blue-collar work is automated, the future looks dimmer for manual workers. The myth and reality of the computer age convince many workers that their jobs will be eliminated. This is a sure-fire way to cut down motivation.

Third, for over 25 years, a large segment of American society has lived in affluence. The young, especially, have a relaxed attitude about finding and holding a job. When people are not full of anxiety over job security, they are free to move to a higher level of needs. I see the new indifference as an expression of the desire for satisfactions in work that go beyond having a job and making a living. People in the 1970's will be more concerned with the quality of life; they will be less satisfied with meaningless work activity. The new indifference is but the first silent, almost unconscious, expression of this desire for quality in one's life.

Fourth, the media have brought the world into everyman's living room. It has bombarded him with status sym-

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bols to the point where the symbols become all important. It shows white-collar people as the only decision makers. Television accentuates many workers' feeling of being "out of it" by dramatizing the advocacy roles taken by students, peaceniks, civil rights demonstrators, and others. The unions have not maintained a strong advocacy position. Many workers see other groups in the limelight and no one out there fighting for the blue-collar man.

Fifth, there are new white-collar jobs that the blue-collar man sees as nonwork. A man who sits and watches a monitor board and periodically pushes a button is a nonworker in the eyes of a machine operator or an assembly line man. The issue of what is work becomes sharpened as white-collar jobs increase. Society seems to be caught between a lag in the Post-industrial Revolution for some workers and advancing technology for others.

Sixth, the educational level of the work force is rising steadily. Today's worker is better educated, more sophisticated, and has higher aspirations. The new worker is likely to demand more opportunity for personal expression and socialization in the workplace. He does not see his life compartmentalized between the job, which is a drag, and living, which takes place after 5 o'clock.

Because of the inflexible nature of the production line, white-collar jobs have a greater appeal. White-collar jobs allow more freedom—coffee breaks, conversations formal and informal, conferences, seminars, personal and business meetings, gossip, and wasting time all break up the day. The physical setting is clean. There is at least a minimum sense of community. This need for community is one of the new youth factors pushing for change in the workplace.

Despite these factors and the prestige attached to white-collar work, many white-collar workers also are showing signs of discontent. Many complain of "meaninglessness." While the white-collar workplace is clean and comfortable, the sense of indifference may be coming from the same tendency to overspecialize job functions that created the problems on the production floor.

Management's attempts to deal with employee indifference range over a variety of schemes. They consist of the "hygiene" factors of wages, hours, and working conditions, which seem to be less important for the new work force; changes in the job itself, usually referred to as job enrichment and job redesign; efforts to change the employee through sensitivity training, seminars, and after-hours educational courses. In the last two areas, management is trying to introduce personal variation and socialization to the workplace under controllable conditions.

Changes in the job usually focus on the indifference of the workforce. When the indifference threatens corporate efficiency, management may accept the fact that much of the work is routine, requires little or no judgment, and is oppressive. Job changes addressed to these complaints involve easing many company practices that separate white- and blue-collar workers. Steps being taken by a few companies are cutting out special dining rooms and parking privileges, removal of time clocks, ending hourly pay, etc.

Management is trying to deal with the new workers' demand for an end to isolation and the desire for community. The organization of worker teams is one attempt. Often, the teams are made responsible for accomplishing a whole unit of production. The camaraderie helps to create a sense of

community and decreases the worker's isolation to compensate for the routine nature of the work.

Job rotation is another technique for dealing with indifference. Workers move among several jobs on a regular schedule. They acquire new skills and perform a variety of tasks within a day, week, or month. This does not answer their socialization and community needs but eases some of the monotony of repetitive tasks.

These job enrichment and rotation schemes seem to have had some success in reducing the indifference expressed in turnover and absences. Product quality has also improved, indicating greater worker interest. These programs have not been applied on a broad enough scale to make any overall evaluation.

Participatory management has been a popular slogan with corporation people for some time. Its underlying assumption is that, if people participate in the decision-making process, they will be motivated to carry out the decisions. In the United States, it has been aimed primarily at management personnel. A few companies are experimenting with involving production workers in the making of decisions. American unions have shown little interest. Traditionally American unions have accepted the view that management runs the plant. The new worker is not accepting that notion so easily.

Efforts at participatory management have been aimed at reducing employee complaints about arbitrary schedules and quotas. Worker committees set quotas, evaluate progress, reassign priorities, and help in other management decisions. In participatory programs, there is wide variation in the authority delegated to workers. Some programs appear no more revolutionary than the old suggestion box, but some involve profit sharing and bonus plans that were formerly white-collar turf. Hopefully, the unions will begin to respond to their young members' interest in changing the nature of the workplace.

The other broad area of management concern is with the individual rather than the job. Sensitivity training, encounter and T-groups, and interface have gained acceptance. These techniques are most often aimed at supervisory and white-collar workers but are occasionally found in blue-collar situations. They are based on the assumption that people feel estranged and do not sense themselves part of the company. The objective seems to be to get employees emotionally and physically involved with each other and the company.

There is some evidence that sensitivity-type sessions are helpful, not so much in changing behavior, but in providing the sense of community. Companies hiring large numbers of "hard-core unemployed" and minority groups have used the sensitivity approach in preparing supervisors and new employees for what will occur in the workplace. Industry acknowledges that these youth will not accept old style authoritarianism. Role playing, videotaped interviews, and language exercises seem to decrease the anxiety of those directly involved in these personnel changes.

Another people-oriented program is continuing education. This usually involves paid time off and/or tuition reimbursement for educational courses related to the job. Advocates of these programs believe that education broadens the "whole man," grooms him for a higher level job, or prepares him better for his present slot.

Most of the "worker indifference" programs focus on three human needs: creativity, socialization, and status. These needs the traditional

worker was willing to suppress. The youth coming to work now is unwilling to sublimate meaningful activity to his leisure time. He looks forward to making his life meaningful, once the basic needs of maintenance, safety, etc., are met. The major obstacle to meeting these needs is that the technical society works against creativity and "humanity." Its efficient operation depends on predictability, routinization, and conformity—anathema to the youth culture.

What does this demand in terms of changes in the workplace? Where routine and repetitive work is involved, it may mean arranging jobs so that men and women may hold two jobs at different locations. The jobs may even involve different kinds of work. Shifts in working hours offer another way to allow for more creativity and socialization. This is a good example of why unions should be involved, since work hours is a normal part of collective bargaining.

Management may also have to provide more time off for employees. The increasing complexity of caring for personal business—getting the car fixed, visiting the doctor, waiting for a repair man—means that employees often cannot take care of these necessities. The new worker is demanding that the workplace be organized for his convenience as well as management's or don't expect him on Friday. While all this is disturbing to many management people, it may be the only way to produce anything. Indifference may prove a greater factor for change than marching and demonstrating.

The other accommodation is for companies to invest in continuing education. The approximately 35 million persons now engaged in adult education outside the accredited educational core testify to a growing need for a change in management attitudes.

Along with the expansion of new collective bargaining educational systems, we need a method for students to accumulate educational credit over their lifetime. We recognize that jobs today require ongoing education; that people often change jobs and return to school for brush-up or advanced courses; that man's need for creativity and challenge often finds an outlet in the educational experience. Therefore, we need to provide for successive forays into the education system. The traditional method of accumulating sequential credit toward a degree in preparation for future jobs seems to be outmoded for our fast moving society. Education should no longer be regarded as a preparatory step; it should be a continuing process.

There should be established a national education credit bank. This would record student achievement throughout a person's lifetime. As certain levels of credit are reached, the accrediting institution could issue degrees. Currently nonaccredited courses could be evaluated and rated for credit or national exams could be established so that credentialing would no longer be the purview of traditional scholastic institutions.

The new worker is making himself felt in the workplace. He is challenging some of the sacred cows of management. It is either scary or refreshing, depending on your point of view. There are people who are dreaming about the good old days when everyone did as he was told. The new worker is dislocating much of the old authoritarianism—which may be the best thing that has happened in a long time.

Faculty Response to Student Confrontation

THEODORE SHAPIRO AND WILLIAM A. FROSCH

Student discontent and the confrontations between students, administration, and faculty have become commonplace. Professional schools and especially medical schools in this country have been relatively spared. This may derive from the professional tradition—the need to maintain self-control to gain guild acceptance. Recently, medical schools have been involved in the reshaping of curricula under student pressure, and word-of-mouth reports suggest that medical students are attempting to achieve participant status in planning.

We wish to record our own experience in a medical school to share with others our errors and successes in dealing with these problems. During the academic year 1968–69, the first-year students at the New York University School of Medicine communicated their complaints about the first-year courses of many departments including the department of psychiatry. Our responses were arrived at empirically. These solutions were not necessarily the correct ones. Unfortunately, they were based not only upon educational issues but upon complex emotional and perhaps irrational factors and complicated group dynamics.

The Course and the Situation

In keeping with general trends in medical education, the faculty of the department of psychiatry of the New York University School of Medicine designed a first-year curriculum based upon a program of modified behavioral science and clinical studies. There were approximately three 1½ hour lectures to the class of 130 students, followed by a 1½ hour conference for which the class was divided into groups of 20 students. The lectures included such topics as anxiety, memory, perception, symbol formation, psychiatric nosology, and interviewing. The material covered disciplines from biochemistry through psychodynamics and social theory. Emphasis was placed upon the conceptual background of basic psychiatry. The course was devised and adapted to wishes of previous first-year medical school classes in conjunction with faculty ideas of relevance. The instructors were with one exception below the level of associate professor. The participating faculty members held weekly meetings to review the effect of the lectures and conferences. Alterations were planned as the course was in progress.

Student attendance at lectures and conferences was excellent. However, following the first six sessions, members of the first-year class approached the faculty suggesting changes and a wish to meet with the faculty with regard to achieving aims that they felt were important. These quiet feelers soon led to more intense requests for a formal meeting. The forcefulness of the request suggested that the students viewed the contact as a confrontation.

Both junior and senior faculty agreed to meet with the interested students. The confrontation was attended by approximately 20 students and 10 faculty members. The students admitted that they were not sure that they represented a majority of their class: they estimated that about one-half of the class felt as they did.

Both opinions and feelings were ex-

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pressed. The students seemed eager to be sensitized to patient needs and to be better educated in social aspects of psychiatry. Some suggested greater emphasis upon development and normal personality. The opinions ranged from a wish for group psychotherapy or T-group training to imposing upon the psychiatric faculty the responsibility to teach them to be "better people" and therefore better doctors. Others expressed the wish for more specific information. There was, then, an oscillation between humanistic goals and the aim of learning technical information. It sometimes seemed as if the students hoped that the latter could be passively absorbed without the usual academic effort.

The meeting closed with a request from the chairman of the department that the students appoint a committee to meet with the faculty to explore the curriculum and to develop appropriate changes. The hope was that in working together the groups might pool their ideas so that future plans would reflect the requirements of an educational program.

A student proposal was formulated in a letter to the faculty members of the committee. The students complained of the "technological arrogance" of the medical profession. Some students felt the case-presentation method was demeaning to the patient. They noted the necessity to learn about their new medical milieu and the milieu of the patient. They polarized their feelings by indicating that their alliance to patients was stronger than their sense of identity as physicians. They complained about the tacit separation in role of doctor and patient and felt that physicians were removed from the problem that the patient presented. They hoped that the psychiatric staff would not only prevent the mechanization of their feelings but would provide them with training in sensitivity. They thrust upon the department of psychiatry the role of helping them cope with anxiety aroused by too intimate patient contact. The degree of intimacy they desired was often neither useful nor proper for optimal professional work. While they considered psychiatry a legitimate field, they feit that a psychiatrist could best teach them something about the doctor-patient relationship.

They felt that the following curriculum changes were necessary: The lecture system should be dropped. They requested small seminars using the Socratic method as the main teaching instrument. They felt that they would like to understand the state of "patienthood" and that the content of the course was irrelevant unless taught in a patient-centered context.

At the end of the second committee meeting, the senior faculty member chairing the session suggested that the next meeting be delayed until the faculty had studied the student recommendations. The students emerged from that meeting with a sense of disappointment. It must have seemed as though they were being abandoned and that the faculty had used the meetings as a deflationary process. Disappointment led to action on the part of the students. During a meeting in the cafeteria, the student group decided to plan mass action equivalent to: "We want it now." They decided that they would walk out of the next lecture, convene in the student lounge, and invite the faculty to meet them on their own grounds.

When this plan became known to the faculty, an emergency meeting was called. There was some sense of coercion at this meeting, but most members agreed that the change was necessary and that lectures would be

dropped. Small conference groups were to be substituted and these would focus on patient examination.

At the next class the chairman of the department announced this plan thereby thwarting the impending boycott action. The announcement was met with applause, and each smaller group convened separately. Despite their response, many students were somewhat embarrassed by the fact that the faculty had seemed to yield. This suggested that the request had many other roots, that social action was complemented by complex personal aims.

The sections met for several weeks in relative quiet and apparent contentment. Class attendance remained excellent; the student-faculty committee convened regularly. The quiet did not last for long. When the faculty announced that they would give the examination in psychiatry, the students balked. During a committee meeting the student representatives suggested that some students would refuse to take the examination.

Although it was clear that some of the student representatives felt that an examination of some sort was appropriate, they felt powerless. Despite their having negotiated on behalf of the students, they felt unable to carry back a negotiated agreement to the rest of the students and obtain their compliance. In response to coercion from the students, the faculty agreed to distribute a take-home examination that had been prepared in collaboration with a small student group. Students were free to complete it or not. At this point students appeared to lose interest in the course, perhaps as a result of the pressure of completing other course work. Attendance dropped at the last class meeting; the student members of the joint committee failed to appear for the last scheduled meeting. Fewer than one-third of the students handed in the examination.

The Faculty Response

Although there was much variation, the feelings and ideas expressed by the faculty can be consolidated along two dimensions: those factors tending to maintain the status quo and those tending to alter it. Thus, the responses may be seen as a microcosm of any social process. The adaptive responses were compromises that varied with the pressure brought to bear by the groups. While the faculty changed in response to student requests, the conservative tendencies may be more clearly delineated.

Conservative tendencies—The factor most supporting the conservative tendency was the *narcissism* of the individual faculty members. The students' intrusions were seen as criticism of the planning and work done to make the course structure what it was. The tendency to hold on to what had taken so long to build gave way to other manifestations of narcissism. There was a tendency to alter the lectures in order to pander to the students. Lecturers worried that they were sacrificing content and only attempting to capture interest. The response of senior faculty increased the narcissistic tendencies of the teaching group. The lecturers were asked to recapitulate their presentations for the senior staff. Thus the performances had to please not only the students but also those higher in the faculty hierarchy.

The faculty shared their individual *rationalizations*: They had had longer experience, who were the students to tell them what to do; they saw no value in any specific model for teaching, no one had demonstrated that any particular method was any better

for relaying information; each member of the group had a special interest that he could best convey to the students. This led to enhancement of each other's pride, with rejection of the idea that change was indicated or useful.

The junior faculty saw itself between two *power* pushes. As had happened so often in campus revolts, some members of the junior faculty felt themselves in agreement with student wishes and demands. On the other hand, there were evidences that the younger faculty distrusted the motives of the students. The faculty identified in the student demands the notion of change for its own sake and other destructive aims rather than idealism that could be harnessed in the service of reconstruction. This pushed the faculty toward more authoritative hard stands.

It became possible to identify the student action as a *deprecation of content*. The faculty was convinced that there was a body of information to be taught that was as important as the information to be imparted by other disciplines. They saw the student activity as a sign of anti-intellectualism. These views, of course, contributed to the tendency toward inactivity and hard line against change.

The psychiatric dictum that one should *understand and talk about problems* rather than act on them was transposed to this social situation. In such a displacement of an intrapsychic model and psychological contract to a social setting there is a tacit disavowal of social activity. If one spends most of one's time understanding prior to acting, much of the thought behind the action is deflated and the desired social changes may also disappear. In its extreme this becomes obsessional doubting. For many students the medical school experience had been a disappointment. They had come with a strong social ego ideal embodied in the idea of the "good physician." But they had been given meager clinical experience and much laboratory science. The disappointment led to one of two adaptations: disavowal of the aims of the discipline, or activity to replace helpless passivity in the hope of changing programs. Many faculty tended to view either response as a symptom. In the therapeutic situation or in working with a single student, this may be useful. It was useless in this situation because the students had not agreed to a therapeutic relationship where a common goal has been agreed upon.

Liberalizing tendencies—Most medical students come from universities where the *traditional authoritarian lines are being contested.* Our experience suggests that instruction from on high is no longer possible within the medical school setting. Students believe that they can be taught in a more participant manner. Although there is a relatively ensconced hierarchy within a medical school, students have suggested that even this can be revised.

It would be difficult for any but the most authoritarian to sit back without admiring the *enthusiasm the students have brought to revising the structure* of the medical school. The faculty could see sense in their insistence on changes now. The older faculty, with experience of change, saw little narcissistic blow in the demands for change. They acted as benevolent grandparents. The junior faculty were close enough in age to the students to identify with the liberalizing demands. The faculty all felt that if one could harness the enthusiasm toward the betterment of the program, the demand for change might not be destructive.

It was the aim not only of the students but of the faculty to have *sensitivity and compassion as major goals* of medical education. Among the psychiatric faculty this has been particularly important: these faculty members could identify with the criticism offered by the students. The students had unfortunately been exposed to occasional brusque attitudes and practices of busy house staff, although they had not been "hardened" by work demands that tend to exclude human values. These exposures had been testimony that understaffing sometimes leads to callousness and that the latter provides a poor model with which to identify. The students looked to psychiatry for verification of their perceptions and for aid in warding off the prospect of believing that what they sometimes saw was the best that medicine had to offer.

Although intrapsychic models and the contract not to act out served as a generally conservative force, it was clear that the *notion of succession of generations* could be applied both within the faculty and between the faculty and the students. If there was any question as to who was being ousted, one could point to the fellow above him. Whoever had no chance as yet to try out his method was eager to show that he could do better than his "father" before him.

Adaptational Inferences

The necessity for continuing change in curriculum is a tacit assumption of any faculty. The direction of the change is dependent upon a number of factors. Medical school curricula have responded to demands of basic science, but there has also been a cry that it become more "humanistic." In the current social climate student unrest has provided a stimulus for change. The involvement of first-year medical school students in this process is noteworthy. The solutions that we arrived at as a faculty were the result of a number of forces, many derived from emotional and nonrational sources.

The single lesson that we learned might be stated in the following terms: Any process by which polarization is intensified tends to make a struggle instead of a cooperative effort. Any process by which the members of the community are asked to talk together enhances the possibility of resolution of conflict. Recognition of the emotional aspects of confrontation is essential in promoting problem solving. One need not relinquish authority as a member of a faculty by talking to students, listening to their opinions, and integrating their views (where appropriate) in new programs.

Our experience suggests the importance of creating from the beginning —or before the beginning—a structure that permits faculty and students to communicate without distortions in working together for a mutual goal. Although the best way to create a good physician may be debated, it is clear that a static curriculum is stifling to students and faculty. A medical faculty remains vital by responding to students' expressed needs for change. Educational techniques effective at one time may not work at another. Students must participate in the planning if we are to educate them rather than teach at them.

Retention of a Conditioned Avoidance Response after Metamorphosis in Mealworms

JOHN C. SOMBERG, GEORGE M. HAPP, AND ALLEN M. SCHNEIDER

Metamorphosis of holometabolous insects involves reorganization of their nervous systems. In spite of such changes, behavioral modifications can be demonstrated at the adult level after manipulations in the larval stage.

The training chamber was a Lucite box. The floor was divided into two parts—a Lucite surface and a copper surface. When an insect bridged the space between the wires and the copper surface, it received shock until it returned to the Lucite. The interval between introduction to the Lucite and the first movement to the copper surface was termed the response latency; an increase in response latency during training was a measure of learning. Each daily session ended when an insect remained on either surface for 30 minutes. On day 1, for both larvae and adults, the copper surface was not electrified, providing a measure of preferences of untrained insects. All preferred the copper.

On subsequent training days the copper surface was electrified. The latency of the first response increased during training. This increase need not represent only passive avoidance conditioning, but could be attributed to habituation effects or to the fact that the animal sampled shock without actually crossing to the copper surface. We investigated these alternatives.

On the day after training, no shock was given, but both larvae and adults remained on the Lucite surface for 30 minutes. Each animal was then left in the apparatus until it explored both surfaces and remained on one for 60 minutes. On the next day, the copper surface was electrified, and response latencies decreased sharply. Because the pattern of preference built up during training had been reversed by a day without shock, habituation to the Lucite surface could not explain the increase in response latencies during training.

In our second experiment each animal was trained as a larva and tested as an adult. One experimental and two control groups were used. Retention in adults was measured by: duration of first period on the safe surface (avoidance latency), and number of errors before the beetle remained on the safe surface for 30 minutes (trials to learn). On both indices the trained group performed better.

Implicit in these data, and in need of investigation, is the probability that storage of information occurs in specific portions of the central nervous system which retain their integrity through the pupal and imaginal moults.

In larva or adult, learning to avoid aversive situations is of advantage to the insect; such behavioral plasticity would be favored by natural selection. In this kind of learning, the exploratory tendencies of the insect are inhibited by a set of learned clues. The fact that the inhibition persists across the pupal stage suggests that each adult will tend to remain in the area which was most favorable for its larval growth. This "place learning" is a conservative phenomenon, reinforcing the isolation of those local populations which are concentrated within the more favorable niches of a heterogeneous environment.

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Assessment of Psychotechnology

GEORGE A. MILLER

Science has been sold to the public in terms of the technological miracles it can support. People are beginning to recognize that many of those miracles have indirect costs greater than anticipated. The result has been a demand for some mechanism for assessing all the costs as well as the benefits of any new technology before it is introduced on a large scale.

The Need for Technology Assessment

The assessment of technology has become a matter of national urgency. Technology has powered the Industrial Revolution for 400 years, and its social effects have been enormous. The impact of technology on the quality of human life seems to be accelerating, and nobody can foresee where it is taking us. There is fear that technological trends may endanger the existence of civilization, perhaps man himself. Some even see in technology the cause of personal and social problems of our times. And since technology has become closely linked to science, science, too, has fallen under suspicion.

This apprehension has taken root more quickly in the public mind than in the minds of scientists and engineers. After centuries of progress based on the scientist's axiom that knowledge is better than ignorance, and on the technologist's axiom that applied knowledge is power, scientists and engineers have been reluctant to accept the accusation that their work has been the cause of all present troubles. A proposition that they have been more willing to accept, is that science and technology might be made more responsive to the social crises we find ourselves facing—peace, privacy, prejudice, poverty, pollution, pathology, and population. Even that admission has not won universal acceptance among scientists, many of whom see a threat to their freedom, if not an emasculation of truly scientific inquiry.

Apprehension is growing, and when the public becomes concerned, politicians become concerned, too. Since the vast expansion of science and technology has been nurtured by public funds, many politicians find themselves bearing a share of the blame, with one response being to reduce funding, and this has been done.

No political acumen is needed to predict that the slowdown in support will probably continue as long as public distrust continues. But if we are moving toward the edge of a technological cliff that means the end of our existence, moving toward it more slowly is not a satisfactory solution. So there has been, among the more thoughtful politicians and those committed to the healthy growth of science, another response. They would not slow down the motor, but they would aim the vehicle in another direction.

In 1967, Representative Daddario (D-Conn.) introduced a bill to establish a Technology Assessment Board "to provide a method for identifying, assessing, publicizing, and dealing with the implications and effects of applied research and technology [H.R. 6698, 90th Cong., 1st sess., 1967]." Out of the discussion of that bill came a request from Congress to the National Academy of Sciences and

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the National Academy of Engineering to undertake a study of technology assessment. The response was two reports issued in 1969: *Technology: Processes of Assessment and Choice* from the National Academy of Sciences, and *A Study of Technology Assessment* from the National Academy of Engineering. The concluding paragraph of the report from the National Academy of Sciences makes an eloquent plea for increased efforts at technology assessment:

> The future of technology holds great promise for mankind if greater thought and effort are devoted to its development. If society persists in its present course, the future holds great peril, whether from the uncontrolled efforts of technology itself or from an unreasoned political reaction against all technological innovation.

These are strong words, and they do not come from a radical anarchistic group. These are reasoned fears of men in a position to foresee the development of technology if we continue on our present course.

Although they deal with social and psychological consequences of technology, and the role of social scientists in evaluating those consequences is recognized, these reports do not deal with psychological technology per se. The National Academy of Engineering considered how we might evaluate effects of instructional television and computer-assisted instruction on higher education, but their concern was more economic than psychological. The dangers inherent in technological innovations based on psychology were, at least temporarily, ignored, but psychology will not be ignored for long.

What makes assessment so difficult is the fact that new technologies usually have secondary effects that are unforeseen, and whose costs are not anticipated. It is easy to think of examples of indirect effects that were not anticipated before mechanical, electrical, or chemical technologies were developed. To bring the matter closer home, consider a psychological example.

During World War II, psychologists developed tests that were given to trainees in the Army Air Forces. There was an Aviation Cadet Qualifying Examination, and those who passed were eligible for training. Then there were the Aircrew Classification Tests used to make recommendations as to which men should be trained as pilots, bombardiers, or navigators. Because navigation was the most technical task, standards were somewhat higher. The results were validated against success in training, and the tests were weighted differently to predict success for pilots, bombardiers, and navigators, with the effect of making verbal and mathematical intelligence most important for navigators, and psychomotor skills most important for pilots. This method solved the military problem quite well, but it had a secondary unforeseen consequence. The pilot was the ranking officer, and from this pool many commanding generals were drawn during the postwar years. It is a debatable point, of course, but I believe that many cadets who were admitted to this pool of pilots were too low in verbal and mathematical aptitudes to qualify as navigators.

The task of technology assessment is not to determine whether the technology works. The psychological tests for aircrew classification were excellent. It was an indirect consequence that can be questioned. This indirect consequence could only have been foreseen if the technologists had held a much broader view of their task. It is this characteristic of technology assessment that makes it such a difficult and challenging enterprise. If technology as-

sessment is not done well, it can have disastrous effects on creativity and innovation. No one would want to have discouraged Binet, for example, on the grounds that his screening devices would lead to a track system having unfortunate consequences for many pupils. The creative scientist may provide an identifiable point of origin for such developments, but many other people are involved in determining how his inventions will be put to use.

One of the most important points in the report by the National Academy of Sciences is that the burden of assessment should be carried as broadly as possible. No single agency should be created to dictate what new technology can or cannot be undertaken or how it can be used. The responsibility must be shared by scientists, engineers, industrialists, the government, and the public.

When responsibility for technology assessment is assigned so generally, any psychologist who takes these issues seriously must assume responsibility for assessing his own work, its technological implications, and its possible social consequences. In undertaking this responsibility, we can be confident that we will not have to proceed unassisted. Psychology has been blessed by a multitude of lay critics, and much of what they have said about the social implications of our work could be viewed as technology assessment by outsiders. I have assembled a set of readings for my own education as to how nonpsychologists view psychotechnology. They range from the vindictive to the vacuous, and not many deserve serious consideration. I did discover one study by a nonpsychologist that stood out as being sufficiently objective and well informed to suggest the kind of technology assessment I think we need.

Assessment by Nonpsychologists

The work is *Privacy and Freedom*, written by a lawyer and political scientist, Alan Westin. Westin's concern was with invasion of privacy. He reviews the devices that have made surveillance by private interests or government agencies so much easier, and he considers the revolution in information collection and processing by computers that has made data surveillance so much easier. Of major interest to psychologists is his discussion of "psychological surveillance."

According to Westin, the heart of the privacy issue in psychological surveillance lies in polygraph and personality testing. His interest is not in the scientific use of the polygraph or the personality test, but the uses to which these techniques have been put in the public sector.

Consider personality tests. Westin begins by establishing the fact that tests have been widely used in personnel selection. In industry, he feels that the high tide of corporate enthusiasm has passed. In government, such tests are not being used in significant numbers, but they are being administered by certain Federal agencies. He reviews the public debate over these tests, and recounts the protests from the early right-wing attacks on school testing programs down to the present protests from liberal, labor, Negro, conservative, and right-wing spokesmen. This debate came to a head in 1965 when Senator Sam J. Ervin, Jr. (D-N.C.) charged that personality tests were an invasion of privacy and that they violated the constitutional rights of Federal employees. Most psychologists tried to defend the tests, but editorial comment around the country indicated that the invasion of privacy through such tests was regarded as a dangerous and insupportable practice.

The view that nobody complains

about personality tests but cranks and oddballs can no longer be defended. A wide range of opinion holds that personality tests are a means of applying covert ideological standards in the name of expert wisdom about "adjustment." To invoke the need for scientific research as an excuse to make such judgments is seen as defeating American society's tenet that such decisions must be made in the open, where they can be challenged and debated.

This battle, and the threat of legal restrictions, persuaded many psychologists that the ethical issues are more important than most of us had realized, and that difficult questions must be answered in order to establish sensitive standards for the use of such tests.

In his review of polygraphing, Westin establishes that this form of psychotechnology is used by more than half of the police departments in the United States. The reason appears to be the polygraph's success in eliciting confessions from those who are told they have failed the test. Polygraph tests are also administered by corporations as part of their personnel procedures to keep employees honest and to discover their real attitudes toward their employer.

Advocates of the polygraph assume that innocent persons have nothing to fear. Critics point out that an innocent person may have emotional reactions of fear or indignation. The machine is not infallible, even when used by competent scientists. It is possible to beat the machine if you think about emotional topics or flex your muscles. Finally, the lie-detector test is a form of "trial by ordeal."

Legally to force someone to take a lie-detector test violates our principle that a person does not have to give evidence against himself. For that reason, some States have enacted statutes forbidding compulsory polygraphing. There are growing indications of public resentment, based on the suspicion that science is being used to bully people.

Westin also gives attention to subliminal suggestion. He does not try to evaluate claims for the effectiveness of subliminal advertising, but he does draw a picture of the surprise felt by its promoters when the storm of editorial, political, and civic outrage broke over them. The issue is whether subliminal stimuli can release or strengthen urges already present, and whether information can be planted in people's minds that will later be thought of as their own beliefs or knowledge. What is threatened is the illusion of personal autonomy that privacy protects for the individual.

The significance is that it was the first of what could be a succession of such techniques that psychologists might develop for tampering with a person's mind without his knowledge or consent. All psychologists should now be aware of how the public will react to such innovations.

The scope of Westin's study was restricted to those aspects of psychotechnology related to personal privacy, but even this sample is enough to suggest that psychologists have not been adequately or effectively assessing the social implications of their own technology.

Assessment by Psychologists

When psychologists try to assess themselves, they are likely to say that, *ceteris paribus*, those activities are best that are most relevant to current social problems. For example, the report of the Behavioral and Social Sciences Survey Committee begins, "We are living in social crisis," and then sur-

veys the behavioral and social sciences in this context. The Committee seems to have felt that these sciences deserve public support because they might be able to contribute to the solution of social problems, and one major recommendation was that schools of applied social science be created. Others have taken a stronger view, namely, that support should be contingent on social relevance.

One can sympathize with this urge for relevance, while recognizing how quixotic it is. Why should psychologists, who cannot resolve conflicts on our campuses or run our professional associations more satisfactorily than any other discipline, claim that our work will solve the more difficult problems of urban decay, racial conflict, foreign relations, public education, or mental health? The answer is that if we do not assess the relevance of our work in the light of these national issues, others will. But how are we to do it?

One might argue that we should settle on our social goals, and then try to characterize the psychotechnology that would contribute to them. Setting social goals, however, is not the responsibility of psychologists, and the urgency of our need for technology assessment leaves us no time to wait for these issues to be resolved politically. Some other way must be found.

One place we have been rather more successful than outsiders might expect has been in the establishment of ethical standards for professional psychologists. To indicate what I have in mind, I would like to draw a rough distinction.

At least two kinds of psychotechnology can be distinguished. Psychologists have, or claim to have, techniques of personal interaction that they themselves can use to educate, persuade, sensitize, or relieve other people. These interpersonal skills might be called "proximal psychotechnology." On the other hand, psychologists invent or design instruments that can be used by nonpsychologists with minimal understanding of the principles on which they rest—mental tests, personality tests, polygraphs, opinion polls, teaching machines, tachistoscopes, psychological drugs, implanted electrodes, etc. These might be called "distal psychotechnology."

I set no great store by this dichotomy, but it may serve to introduce the following argument. In order to protect the public against the misuse of proximal psychotechnology, the American Psychological Association has adopted a formal Code of Ethics. This Code has worked well, and we can be proud to be members of a profession that can police itself as effectively as psychologists have.

An argument can be made that we have already taken the first and perhaps most important step toward the assessment of our own technology. The next question is whether any further step is necessary, and whether something similar to a Code of Ethics might be indicated. In my opinion something more is needed. Westin's review of personality tests, polygraphy, and subliminal stimulation indicated that when used by trained psychologists—as "proximal" techniques—little harm could result as long as the psychologists observed ethical standards. When these instruments were used by nonpsychologists, problems of public concern arose. The next step is to devise some way to protect the public against the misuse of distal psychotechnology.

Should we try to impose our Code of Ethics on every nonprofessional who uses these techniques? It would not be easy. Consider new group procedures that have been developed. Are

they educational or therapeutic procedures? If they are therapy, every person who participates in a sensitivity training group and who, in his enthusiasm, decides to organize his own groups and serve as trainer, would be expected to abide by the psychologist's Code of Ethics. Such obedience on the part of nonpsychologists would be desirable, but this example suggests how difficult it would be to implement. The APA has some control over its members, but there is no way that APA could police the public.

I would like to consider whether some set of principles—call them a "Code of Priorities" to have a different name—could be devised to supplement the Code of Ethics. A Code of Priorities might help psychologists assess their own work, and serve as guidelines for those who advise on the allocation of resources to support the work of others, or who try to develop programs of education and research in applied social science. I know that one person cannot formulate such codes, but a few suggestions may open the discussion.

A Code of Priorities

The following principles, while not exhaustive, are intended to be both suggestive and compatible with the Code of Ethics. They are not all equally important, but I will make no attempt to assign weights or suggest how conflicts among them might be resolved.

Principle 1. Valid psychotechnology should have priority over invalid. A technique is valid if it accomplishes what it is claimed to accomplish.

Principle 2. Intelligible psychotechnology should have priority over unintelligible. A technique is intelligible to the extent that we understand how and why it works.

Principle 3. Reliable psychotechnology should have priority over unreliable. A technique is reliable to the extent that it gives the same result every time.

Principle 4. Socially relevant psychotechnology should have priority over irrelevant. A technique is socially relevant if it can contribute to the solution or amelioration of personal or social problems that are of wide public concern.

Principle 5. Safe psychotechnology should have priority over dangerous. A technique that is safe does not, when properly used, endanger the physical, mental, or social well-being of those to whom it is applied.

Principle 6. Psychotechnology for which accountability can be assigned should have priority over that for which it cannot. A technique satisfies this principle if the person who uses it can be identified and held responsible for his actions.

Principle 7. Psychotechnology that obtains the consent of the affected individual should have priority over that which does not. A technique that obtains consent cannot be applied without the knowledge and permission of the individual to whom it is applied.

Principle 8. Psychotechnology that can avoid deception should have priority over that which cannot. A technique involves deception to the extent that its validity depends on the subject's ignorance of its procedures or true intent.

Principle 9. Psychotechnology that respects individuality should have priority over that which does not. A technique that respects individuality cannot be applied to a person without prior consideration of his personal characteristics.

Principle 10. Available psychotechnology should have priority over una-

vailable. A technique is available to the extent that a person who could profit from it is able to obtain access to it.

Principle 11. Distributable psychotechnology should have priority over nondistributable. A technique is distributable to the extent that its use need not be restricted to some privileged elite, but can be used by the general public.

The first three principles—validity, intelligibility, and reliability—seem self-evident. They are intended to insure that our technology rests on a firm scientific base.

"Social relevance" is intended to honor the sentiment that psychologists should try to be more useful to the society that supports them. But this principle should *not* apply also to psychology as a science. It is one of the rewards of science that large truths can often be found in small and obscure places, and that the ultimate applications of basic science are almost impossible to foresee. But technology is more amenable to guidance toward particular problems. The goals of psychotechnology should be the ones judged to be most relevant to the urgent problems of society.

"Safety" seems self-evident to me, but I sometimes wonder how much attention we have paid to it. When a new drug is introduced, the law decrees that extensive tests must be conducted. When psychologists develop a new method of therapy, no such stringent tests are usually applied before it is adopted in practice. For most psychological procedures, no doubt, little harm is done by this absence of a screening procedure. But some things we are learning how to do should be questioned before they are widely disseminated. For example, if operant conditioning can be used to speed up or slow down a person's heart, should this technique be made available to cardiologists without extensive clinical pretesting?

Accountability also seems obvious. We should not try to practice covert psychotherapy. Public reaction to a relatively innocuous technique like subliminal advertising can stand as a warning of what to expect if we try to tamper with a person's mind without his knowledge. Not only should the source be identifiable, it should be responsible.

The seventh principle would require a psychotechnologist to obtain the consent of any individual who will be affected. Obtaining consent is not always a satisfactory solution, because the technologist and the layman do not have equal information about the procedure to be used or the indignities it may entail, but it is the minimum that we should expect. The crux of the problem lies in the fact that we are developing techniques that do not so much violate a person's will as subvert it; people can be led to desire what the technologist wants them to do.

Much has been written about the ethics of deceiving subjects in experiments, and the same arguments should apply in psychotechnology. Given two ways to accomplish the same goal, a psychotechnologist should prefer the one that entails the least deception.

The ninth principle implies that we should make full use of all we know or can learn about individual differences. This specificity should lead to far greater power in our technology than would be possible if we pretended that our techniques could be applied universally to all people in the same way. Moreover, it forces us to consider our psychotechnology from the victim's point of view—in terms of

his capacities, needs, aspirations, and expectations.

There are many reasons why a technique that could benefit some person may not be available. He may be ignorant of its existence, there may be no one competent to administer it to him, or it may cost more or take longer than he can afford to spend. Any technique that might reduce such barriers should be given developmental priority.

Finally, the eleventh principle is distributability, which would seem to be the most questionable. It grows out of my conviction that we should try to facilitate the use of valid psychological principles by nonpsychologists, that we should use psychology to give people psychological skills that will satisfy their urge to feel effective.

Distributability seems to contradict the APA Code of Ethics which states that "Psychologists discourage the practice of psychology by unqualified persons." This contradiction is more apparent than real. We need something similar to the distinction between the use of first aid and the practice of medicine. Laymen *use* psychology all the time in their personal and social affairs; such use should not be confused with the *practice* of psychology by laymen. The issues are sufficiently complex to justify discussing this priority in greater detail.

Distributable Psychotechnology

A precise definition of this monstrous word "distributability" is needed, but I am not ready to provide it. Some examples might give an intuitive feeling for it.

I believe the desirability of this criterion becomes most apparent when we consider the problems posed by new techniques of behavior control. Behavior control means that some people have power over others. The ethical issues center around how that power is to be exercised—over whom, by whom, on what occasions, for what purposes, and with accountability to whom.

Our responsibility is to give psychology away to the people who need it—and that includes everyone. Our first line of defense against exploitative uses of psychotechnology is public education.

My interest in psychology has been in research on psychological aspects of language and communication. Because our human capacity for speech is continually in my mind, I can never approach questions of behavior control without remembering that the most precise technique we have for behavior control is human language. This "technique" can cause you to do things you would never think of doing otherwise. It can change your opinions and beliefs. It can be used to deceive you. It can make you happy or sad. It can put new ideas into your head. It can make you want things you do not have. You can even use it to control yourself.

Language is the most subtle and powerful technique we have for controlling other people. Nothing that psychologists are going to invent is likely to be nearly as precise or influential in controlling people as human speech. This behavioral technique was not invented by psychologists. Far from thinking of it as evil or threatening, most people regard this kind of control as one of the greatest triumphs of the human mind, as the very thing that raises man above all the other animals.

When we think of behavior control in these terms, it forces us to recognize that not all techniques of control are evil, immoral, or coercive. Some of them are essential for civilized existence as we know it.

Why, then, do we become disturbed when we hear about a whole new psychotechnology of control? If language has been around all these years without destroying us, what do we have to fear? Or, to put the question the other way around, what is it about the linguistic technique of control that prevents it from being a threat to our civilized existence?

One answer is that language is universally shared. If it is an instrument for controlling behavior, at least it is available to everyone. The only cases where speech can be used to exploit those who rely on it are cases where speech is not free, where certain avenues of communication are available only to those who hold one view. Seen in this context, universal availability seems to be the best antidote against the misuse of any technique of behavior control.

Perhaps the second most important technique of behavior control is money—which psychologists did not invent either. Unfortunately, money is not distributed equally through society, but tends to become concentrated in some hands at the expense of others. Setting aside the need for capital to accomplish ends that will benefit society, it is a fair hypothesis that the more equally this method of control is distributed among the people, the less likelihood there is that it can be used by the few to exploit the many.

By such simplistic arguments, therefore, I was led to the position that it is not control per se that is dangerous, but rather the concentration of control in the hands of some powerful minority. If it is inherent in a technique that it cannot be universally used, then its use should be regulated by laws and ethical codes. To the extent that a technique can be used universally, the right to use it should be protected by law, and people should be educated about its potentialities and limitations.

The difficult cases are the ones already mentioned: psychological surveillance, psychological drugs, hypnosis, conditioning, brain stimulation, etc. Our recognition that these are difficult arises from our recognition that it is difficult to distribute their use. Special legislation may be required to regulate their use.

If we focus on these difficult cases, we can frighten ourselves into overlooking the many cases of psychotechnology that can be and should be broadly shared. We may discover that techniques which we have developed in a nondistributable form can be recast in a distributable form. The point might be illustrated by the use of positive reinforcement as a method of behavior control. Although positive reinforcement can be used nondistributively, most psychologists would agree that the greatest benefits will be realized when the principles are known and understood as widely as possible.

I have raised many questions, and I am aware that my answers are incomplete and unsatisfactory. No code can endow us with the kind of prescience we need to foresee all the consequences of new technology.

I believe that we face a serious problem. Perhaps if we debate it openly and honestly we can stimulate a general awareness and a broader perspective toward psychotechnology in the public sector as well as among professional and scientific psychologists.

Metiapine: A New Antipsychotic Agent

D. M. Gallant, M. P. Bishop, and R. Guerrero-Figueroa

Metiapine (2-methyl-11-(4-methyl-1-piperazinyl)-dibenzo [b,f] [1,4] thiazepine) is a dibenzothiazepine derivative. The purpose of this study was to evaluate it in severely chronic female schizophrenic patients, ranging from 40 to 53 years and hospitalized on the average for 20 years. Placebo was administered during a 4-week washout period and subjects then received metiapine for 8 weeks. The initial dosage of 20 mg. daily was gradually increased to a maximal dosage of 400 mg. daily at the beginning of the 6th week. Three patients were subsequently increased to 500 mg. daily. The effects were evaluated by global ratings of improvement, the Brief Psychiatric Rating Scale (BPRS), the Nurses' Observation Scale for Inpatient Evaluation (NOSIE), and an extensive battery of laboratory tests. Efficacy measures were conducted at baseline and after 4 and 8 weeks.

Overall findings suggest that metiapine is a highly active antipsychotic agent. The data tend to support the prediction from animal studies of a relatively wide margin between dosages which exert beneficial behavioral effects and those which produce troublesome extrapyramidal reactions.

Global ratings of clinical change, made independently by two psychiatrists and two research nurses, showed a high level of agreement and were averaged to provide single ratings for each patient at each rating period. These ratings suggest that the patients as a group responded remarkably well. These are severely chronic and drug-refractory patients who do not react positively to placebo and whose pharmacologic response is well known. The indicated overall improvement rate of 90 percent, and especially the high proportion of patients rated as moderately or markedly improved, compares well with results obtained with other active antipsychotic compounds. Findings obtained with the more objective rating scales strongly support the global ratings.

Side reactions were minimal. Only four patients exhibited extrapyramidal phenomena. With the exception of the single episode of dystonia, extrapyramidal reactions did not appear until dosage had reached 250 to 300 mg. daily, whereas therapeutic activity was generally observable at lower dosages —120 mg. daily in some patients. Some transient drowsiness was reported, but notable sedation was observed in only one patient. All other findings were negative.

Although no definitive conclusions can legitimately be drawn from results of an uncontrolled trial, it appears that metiapine is a highly active antipsychotic agent. It impresses us, in fact, as perhaps one of the most promising compounds we have encountered in 10 years of testing investigational drugs within this general patient population. Of special interest is the suggestion from our data of a fairly wide margin between dosages which produce positive behavioral change and those which induce significant side effects. This compound clearly merits further controlled investigation in both chronic and acute schizophrenic patients.

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Illicit Drug Use and Addiction in the United States

Louise G. Richards and Eleanor E. Carroll

This report is a summary of new findings that portray the current statistical picture of drug abuse. The drugs with which we are concerned are the opiates (narcotics), marihuana, and nonnarcotic psychoactive drugs including sedatives, stimulants, and tranquilizers.

The only sources of information on illicit drug use nationwide are the results of polls that include questions on the use of drugs. Polls, however, are seldom adequate for estimating the scope of the problem. Other than polls, sources for estimates consist mainly of one-time studies of high school and college students in scattered locations, using various sampling techniques, instruments, and survey methods.

The NIMH has funded studies now in progress that will improve the nationwide estimates. Data analysis is nearly complete on the first nationwide survey of college students by any Federal agency. The study will include 10,000 students in a sample of 50 colleges. The survey will be repeated to provide data on changes. A survey questionnaire is being developed by Hofstra University for research in secondary schools. This instrument will provide standard data for comparison of drug-use rates in different parts of the nation. A third project is a 5-year longitudinal study on drug-using behavior and attitudes of junior and senior high school students in different locations across the country.

The only source of national figures is the reporting system maintained by the Bureau of Narcotics and Dangerous Drugs (BNDD) of the Department of Justice. Since the system depends on voluntary reports, the numbers are underestimates. Although the Bureau accepts information from all sources, the prime contributors are law-enforcement agencies. Health and social agencies are reluctant to provide names either because the confidentiality of the doctor-patient relationship may be violated or because names may be used for enforcement purposes.

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Assessment of Current and Future Use

Many figures about the extent of drug abuse treat all drug use as homogeneous and current. Some recent surveys have included questions that allow assessment of the drug users who have discontinued use of drugs. Taking these proportions into account allows a more realistic appraisal of the drug problem as it exists at one time. A few surveys have included questions on intent to use.

Two studies have shown that fairly large proportions of students who used the common drugs of abuse have discontinued. In Montgomery County, Md., in 1969, almost 40 percent of those who had used marihuana or LSD had quit. About 60 percent of the users of heroin or amphetamines and two-thirds of the barbiturate experimenters had not used them again. A 1969 survey of nine campuses in the Denver, Colo., area revealed that 40 to 50 percent of the students had discontinued the use of marihuana, amphetamines, or LSD.

In two college studies the proportions of students intending to use il-

licit drugs were smaller than the proportions who had used them. On the nine Colorado campuses, 12 percent of the students planned to use marihuana; at Carnegie-Mellon, 15 percent. These figures can be compared with 26 percent and 24 percent of those who reported having used marihuana. Two and 3 percent of all the students in the two studies planned to use LSD, compared with 5 percent who had used LSD.

Estimates of Narcotic Addiction

The most recent BNDD estimate of the number of narcotic addicts in the United States is 68,088 for the year ending December 31, 1969, with more than 95 percent heroin users. About 7 percent were under 21 years and more than 55 percent under 30 years. The ratio of men to women was about 5 to 1. There were approximately equal numbers of whites and Negroes. The number of new addicts doubled from 1968 to 1969, with the majority under 30 years old.

The narcotics register of the New York City Department of Health was established in 1964 in part to test the feasibility of a broad-based collection of cases. Supported by an NIMH grant, the register used different kinds of sources: hospitals, addiction service agencies, police and correctional agencies, private practitioners, and other health and social agencies. An estimate of the addict population nationwide can be approached by comparing the BNDD figures with those from the New York City register for the same period.

The BNDD for New York State (narcotics) was 32,240; the New York City register (heroin) was 52,104. This yields a ratio of 1 to 1.6, which can be used to project an estimated nationwide total for 1969 of 108,941 narcotic addicts. This figure is undoubtedly an underestimate.

Another approach is through extrapolations of the number of heroin-related deaths investigated by city officials. In New York it has been observed that the number of heroin-related deaths was consistently about 1 percent of the number of reported addicts. In 1969 only half of the 900 persons whose deaths were attributed to heroin were listed in the city's narcotics register. From these figures it is possible to estimate that there were 90,000 to 104,000 heroin addicts in New York City in 1969. The nationwide total in 1969 may have been more than 200,000—arrived at by doubling the New York City estimate, since, according to BNDD figures, the nationwide total is usually about twice that of New York City.

Figures from the New York City register for 1968 indicate that Negroes composed more than half of the user population and were more than twice as numerous as white users. Puerto Ricans composed 16 percent of the registered users and were about half as numerous as other white users. The proportions of users under 20 and under 30 years old have been increasing steadily since the register was started.

The ideal estimates of narcotic drug use would be data from ongoing health surveys of samples of the population. Use of narcotics may be particularly subject to underreporting because of fear of exposure to officials. Thus the validity of survey findings that do exist may be low.

All statistics show that the narcotic drugs have been used by small proportions of students. Since most recent surveys have been conducted in middle-class schools or colleges, the rates of heroin use in high risk areas are not adequately measured. Also, the rate

among dropouts is not ordinarily taken into account in studies in schools. A serious lack of data exists on the extent of experimentation with narcotic drugs by adolescents.

Estimates of Marihuana Use

That the use of marihuana had been increasing was confirmed in several surveys. It increased 5 to 12 percentage points between 1968 and 1969 —in the secondary schools in San Mateo County, Calif., at the University of Maryland, at Carnegie-Mellon University, and among college students nationwide. Increases would have been found in almost every school or college during that period. Observations of proportions as high as 75 percent for a given school have been made.

There is only one study capable of indicating trends for 1970. For 3 years San Mateo County has conducted a survey of drug use among junior and senior high school students. In 1968 and 1969, there were steady, large increases. The increase in 1970 was decidedly smaller. For boys there was a 1.6 percentage point increase in "any use" between 1969 and 1970 instead of the 7.9 percentage point increase between 1968 and 1969. For girls an increase of 7.2 percentage points from 1968 to 1969 declined to a 3.4 percentage point increase in 1970. More important, the seventh and eighth grades showed a decrease in the use of marihuana between 1969 and 1970. Changes in one county's schools cannot represent the situation in schools across the country. However, schools on the West Coast were the first to experience the onslaught of drug use, and their experience may be the harbinger of a stabilization of rates or of a decline in interest among students.

If the increase among students is slackening, the decline may be outweighed by more interest in marihuana on the part of out-of-school young adults. A study of marihuana use by adults in San Francisco in 1968 indicated that almost the same proportions (about 40 percent) of noncollege young adults as college students of the same age group had used the drug. There are surveys of other adults available to judge the strength of this possibility.

Estimate of LSD Use

Surveys of San Mateo County secondary schools indicated a stabilization or lessening in the use rates of LSD. All changes from 1969 to 1970 were decreases in the proportions who had used LSD except for small increases among sophomore and senior girls. Again, these changes cannot serve as a predictor of a nationwide trend, but they are encouraging.

Estimates of Other Drug Use

The most recent surveys of illegal use (without medical supervision) of "soft" drugs among high school and college students show that the amphetamines were used less widely than marihuana but more widely than LSD. Tranquilizers and barbiturates were used somewhat less widely than amphetamines. More persons have used all three drugs than have used LSD or the opiate drugs. Study of the misuse of legally obtained prescribed or over-the-counter drugs would show that some adults in all ages and classes are vulnerable to this abuse. Unfortunately, the information on legal use of drugs is not compiled in such a way that these groups of abusers can be identified.

Extent of Use of Psychotropic Agents

Drugs used to treat psychiatric disorders or emotional symptoms fall into

a class of psychotropic agents, defined as those substances that have their main effect on mood, thought processes, or behavior. Of prescriptions filled in 1967, 17 percent were written for psychotropic drugs.

Results of a survey in one State in 1967 revealed that about one adult in four took such a drug in the preceding 12 months, about half had taken them at some time in their lives, but only 17 percent had used them frequently. The psychotropic drugs were used most in the over-20 group, principally during ages 40 to 59. Stimulant drugs were used more extensively during young adulthood (for appetite suppression and anti-obesity). Sedatives and hypnotics were used more extensively in the over-40 group.

In an analysis of prescribing practices in 1968, examination of the uses of psychotropic drugs showed that percentages varied for psychiatric compared with nonpsychiatric diagnoses. Sixty-four percent of antidepressants were used for those with psychiatric diagnoses; only 10 percent of sedatives were used for psychiatric disorders. Almost all prescribing for these drugs fell into categories of psychological actions such as tranquilization, antidepression, or anti-insomnia. The exception was the large proportion of stimulant prescriptions for anti-obesity action.

There are other potential sources of information of an epidemiologic nature for gauging the extent of the problem. In general they tap instances of the adverse effects of the drugs, such as hepatitis, "bad trips," visits to physicians or clinics, drug dependence in hospital patients, and deaths due to drug use. Those sources have not been systematically surveyed but could serve as a barometer of the severity of effects of drug abuse. Such statistics should be tied to reliable estimates of use, so that rates of adverse effects could be computed.

Even the surveying of populations of drug users has not been carried out as thoroughly as possible. Recent reports about the use of drugs by mental patients, industrial employees, and servicemen point to the need for a wider net for systematic collection of estimates of use.

Assessing drug abuse and addiction has difficulties beyond the ordinary precautions for assuring reliability and validity. Drug users are reluctant to admit to illegal behavior. To improve the probability of valid responses, it is advisable to tell the respondents that the information is confidential or that they are immune from prosecution. But few States protect confidentiality —New York is one—or provide immunity to researchers—as do Massachusetts and New Hampshire.

Difficulties arise in attempting to collect data in classrooms. Many principals and boards of education are opposed to the use of schools for this purpose or do not wish to risk parental disapproval. Finally, permission to survey a school population is often denied because of the fear of adverse publicity.

Lack of confidentiality laws hampers the establishment and proper maintenance of case registers, since professional workers and agencies often do not want to divulge names of patients and clients. Registers also face shortages of personnel and financial support.

There is great demand for information and interest in disseminating reliable facts. The time seems ripe for expansion and improvement in this field.

Recent Cases

Ashton v. United States, United States District Court for the District of Columbia, October 8, 1970

Defendant Ashton, a heroin addict off-and-on since 1950, was found with one gram of heroin in his possession and was charged with "sale or possession" of heroin. He defended on the ground that possession alone should not make him subject to criminal penalties.

The United States District Court for the District of Columbia agreed, dismissing the case on the grounds that Ashton intended to use the drug himself. It based its ruling on an opinion to this effect last July by the United States Court of Appeals for the District of Columbia Circuit (*Watson v. United States*). The Appeals Court in that case did not squarely base its decision on the distinction between use and "mere possession"; but it strongly indicated in *obiter dictum* that it would so hold in a future case that was an "appropriate vehicle" for reexamining the relationship between drug addiction and criminal responsibility. On appeal of the instant case the higher court will have its opportunity to clarify and elaborate upon its initial, tentative stance.

The District Court asked that the appellate court's review be expedited so that existing uncertainties could be resolved and so that guidelines could be established for use in future cases. For example, while the Court of Appeals in *Watson* distinguished between addicts who possess narcotics for their own use and those who traffic in narcotics—the traffickers, the court said, should be subject to criminal penalties —there is considerable uncertainty as to what constitutes trafficking. As the opinion noted, "It is a matter of common knowledge that most addicts sell narcotics from time to time to finance their habit, or trade heroin for the favor of food or lodging, or give drugs to friends facing withdrawal. If acts of this type constitute trafficking, the possession exemption . . . will prove nearly meaningless." The Court of Appeals, the opinion continued, must spell out a standard for degrees of trafficking—the persistent peddler versus the occasional one.

On another point, the court in *dictum* thought that courts might be required to hold two-part trials in narcotics cases when a defendant claims that he is not a trafficker. In the first part, the defendant would admit he is an addict and seek to prove he is not a trafficker. The jury would simply decide this question. In the second part, the penalty would be decided upon. This two-part trial would be necessary to avoid the chance that the admission could be used against the defendant in determining his guilt. To handle routine heroin cases with two-part trials, the court observed, "would be a serious obstacle to efficient judicial administration."

Finally, the court expressed its concern that if some addicts became exempt from criminal prosecution they no longer would be eligible for treatment under Titles I (Civil Commitment in Lieu of Prosecution) and II (Sentencing to Commitment for Treatment) of the Narcotic Addict Rehabilitation Act (NARA) according to the provisions of that Act requiring that an addict be charged with or convicted of an offense. (Of course, an addict could still be eligible for treatment under Title III, "Civil Commitment of Persons Not Charged with Any Criminal Offense." Here,

however, the addict or a relative, not the court in the first instance, initiates commitment.) Thus, many questions remain to be answered by the Court of Appeals.

Von Wolfersdorf v. State of New York, United States District Court for the Northern District of New York, August 31, 1970

Arrested 20 years ago for kidnapping and murder, Von Wolfersdorf was found mentally incompetent to stand trial. He was indicted jointly with one Paonessa, who was convicted and executed in 1953. Paonessa's testimony was all that incriminated Von Wolfersdorf. In 1969 Von Wolfersdorf, then 85 years old, asked for transfer to a civil hospital. The State Department of Mental Hygiene found him not dangerous, but could not transfer him because of provisions of State law forbidding transfer in such cases. Von Wolfersdorf appealed.

The Federal Court ordered the transfer to the civil hospital. While stopping short of voiding the State law, the opinion vehemently attacked the use made of it in this case. The State, the court said, could not ever conceivably bring Von Wolfersdorf to trial because all the witnesses against him had either died or disappeared; although there was "no speck of evidence on which (he) could be tried . . . (the state had) locked (him) away" for nearly 20 years because of the charges against him. As he is not dangerous, and the State Department of Mental Health agreed he could be transferred but for State law, the court said, the transfer should be granted.

The court not only found that Von Wolfersdorf's constitutional rights to a speedy trial, to due process of law, and to protection against cruel and unusual punishment had been violated by the State law; it also found "that the place where (Von Wolfersdorf) is now held . . . is vastly different from —i.e., more miserable than—State hospitals for those civilly committed." The Matteawan State Hospital for the criminally insane, the opinion stated, is "a place more likely to drive men mad than to cure the 'insane'."

The condensation of the article, "Definitional Factors in Mental Incompetency" from *Sociology and Social Research*, 54(4):520–532, 1970, which appeared in the December 1970 issue of the *Digest*, should have shown the authors as C. Allen Haney of Wake Forest University and Kent S. Miller of the Florida State University.

NIMH Appropriations

The appropriations bill for Fiscal Year 1971 for several agencies was signed by the President on January 11, 1971. Included were appropriations for the National Institute of Mental Health, as follows:

Research	
Grants	$ 90,600,000
Direct operations	26,389,000
Manpower development	
Grants	116,350,000
Direct operations	5,671,000
State and community programs	
Community mental health centers	
Construction (Obligations from previous appropriations)	— (27,300,000)
Staffing	90,100,000
Narcotic addiction and alcoholism	15,900,000
Direct operations	2,499,000
Rehabilitation of drug abusers	19,640,000
Program support (NIMH staff, Regional Offices, etc.)	12,367,000

Teenager on NAMH Board

Susan Alexander of Evansville, Indiana, is the first teenager to be elected to the Board of Directors of the National Association for Mental Health. Age 18, she is a freshman at the Indiana University and has been active as a volunteer in the field of mental health.

Volunteer of the Year

The Katherine Hamilton Volunteer of the Year Award was presented to Mrs. Alice Kidd of Birmingham, Alabama. The Award is presented annually by the Mental Health Association of Indiana to a person who has given outstanding volunteer service to patients, and the presentation is made at the convention of the National Association for Mental Health. Mrs. Kidd has been active in mental health work for some 20 years. She has handled "Operation Santa Claus" which includes assembling and distributing gifts for indigent patients in the hospitals and decorations for the wards. She also handles the ward adoption program through which groups are encouraged to sponsor wards at Bryce Hospital, and to hold parties and programs for patients on the wards. The first social club for ex-patients is another of her important projects. (Adapted from the *Newsletter* of the Jefferson County Association for Mental Health)

Psychosocial Factors in Transnational Family Planning Research

The *Proceedings of the Conference on Psychosocial Factors in Transnational Family Planning Research* held in Geneva, Switzerland last April have been published by the American Institutes for Research. The conference was organized jointly by the University of Geneva Medical Faculty and the American Institutes for Research and cosponsored by the International Planned Parenthood Federation and the World Federation for Mental Health. Reports were presented on psychosocial factors in transnational family planning research, a study of unwanted and wanted children in Prague, and studies of repeated abortion-seeking behavior in Budapest and in Geneva. Also included are summaries of several workshops on various aspects of the problem and a list of WHO publications on "Human Re-

production and Related Subjects." Edited by Henry P. David and Jacques Bernheim, the report is available (as long as the supply lasts) from AIR, 8555 Sixteenth St., Silver Spring, Md. 20910.

Perceptual and Reading Disorders

Early Experiences and Visual Information Processing in Perceptual and Reading Disorders is the title of a new publication of the National Academy of Sciences-National Research Council. Edited by Francis A. Young and Donald B. Lindsley, it is made up of the proceedings of a conference held in association with the Committee on Brain Sciences, Division of Medical Sciences, National Research Council. The conference was intended to bring together researchers from many different fields to discuss the many unanswered questions and unsolved problems in perceptual and reading disorders. Estimates based on limited sampling indicate that some 10 to 20 percent of children in the U.S. have difficulty in learning to read or actually never really learn to read. But, the report maintains, much research needs to be done in the field of reading. The 533-page report (ISBN 0–309–01765–3) may be obtained from the Printing and Publishing Office, NAS, 2101 Constitution Ave. N.W., Washington, D.C. 20418.

Systems Approach to Program Evaluation

WICHE has published a collection of papers, "Systems Approach to Program Evaluation in Mental Health," developed by members of the Program Evaluation Task Force of the Western Conference on the Uses of Mental Health Data. There is a growing demand for evaluation of mental health programs, and especially for a methodology to accomplish it. This publication covers such topics as the need for a comprehensive approach to program evaluation; what kind of measures to use; key factor analysis—a general systems approach to program evaluation; mental health programs and boundaries; characteristics of good key indicators; people in a systems approach; the systems approach and political realities; comments on the systems approach; and applications of the key factor analysis systems approach. Some illustrations of "real" results of this approach are also presented. WICHE's address is Western Interstate Commission for Higher Education, Post Office Drawer "P," Boulder, Colo. 80302.

Training in Law and Social Science

A five-year program leading to a degree of doctor of jurisprudence and doctor of philosophy in social science has been started at Northwestern University with grants from the National Science Foundation and the National Institute of Mental Health. The first year will be devoted primarily to studies of the law and the second to the social sciences; the third and fourth years will be studies in both fields, with the student receiving the J.D. degree at the end of the fourth year, and spending the fifth year on the Ph.D. dissertation. Special research projects, especially on various practical problems where the law and social sciences impinge on one another, will be engaged in during the summers.

The project director is Dr. Victor Rosenblum, The Law School, Northwestern University, Evanston, Ill. 60211.

Training in Biostatistics

The University of North Carolina offers a training program in mental health statistics. The program trains biostatisticians at the master's degree level and prepares them to apply sta-

tistical training to fields such as mental health, community psychiatry, psychiatric disorders, mental retardation, and psychiatric research. For information write to Dr. Donna R. Brogan, University of North Carolina, School of Public Health, Department of Biostatistics, Chapel Hill, N.C. 27514.

Social Work Publications

The prices for the social work publications mentioned in the December 1970 issue of the *Digest* should have been given as follows: *Social Work Administration: A Resource Book*—$6.00; *A Casebook in Social Work Administration*—$4.00.

Drug Abuse Programs and Policies

A 36-page *Guide to Ideas on Drug Abuse Programs and Policies* has been published by the Committee for Psychedelic Drug Information, a nonprofit educational organization devoted to drug abuse prevention and education. It covers a wide variety of material: summaries of drug abuse programs now in operation; ideas concerning possible changes in approaches to the drug problem; utilization of former drug users in drug abuse programs; tips on counseling techniques; summary and budget for a high school drug abuse counseling program; outline of a master's degree program in drug abuse education. The Guide may be ordered from C.P.D.I., P.O. Box 851, Berkeley, Calif. 94701, along with a $2.50 contribution (tax deductible) to cover printing costs.

Drug Usage Study in Canada

The Canadian Medical Association, with support from a Federal grant, is engaged in a study of "Medical and Nonmedical Use of Mood Modifying Drugs." The objective is primarily to study the abuse of mood-modifying drugs, particularly the amphetamines. It will be conducted primarily by means of a diary mailed to physicians; the diary will be the physician's record of the number of prescriptions he writes during the 1-week following receipt of the form. For each prescription the physician will indicate whether it is new or repeat and whether it resulted from a personal contact or telephone call. All data will be completely anonymous and confidential. (*CMA*, Vol. 103, 1970).

TV in Psychiatry

The *TV in Psychiatry Newsletter* is now being published by the Department of Psychiatry at the University of British Columbia. The latest issue contains summaries of the discussions at the First Canadian-American Conference on Television in Psychiatry. One of the main recommendations of the conference was that the *Newsletter*, formerly published at the University of Mississippi, be continued as a "means to continue the exchange of ideas, viewpoints, and TV challenges brought forth at that meeting." The *Newsletter* is now available on a subscription basis ($10) from the Instructional Resources Division, Department of Psychiatry, University of British Columbia, Vancouver, 8, B.C.

Marihuana and Health: A Report to the Congress from the Secretary of Health, Education, and Welfare

In this first report to the Congress on marihuana and health, an attempt is made to describe the present state of scientific knowledge concerning this issue.

The report brings out that marihuana is not a single, simple substance of uniform type. Rather, it consists of varying mixtures of different parts of the plant, *Cannabis sativa*, with psy-

choactive properties ranging from virtually nonexistent to decidedly hallucinogenic in its stronger forms and at high doses. Most American experience has been limited to the widespread relatively infrequent use of a rather weak form. Although the principal active ingredient is thought to be △-9-tetrahydrocannabinol, much remains to be learned about the chemistry of marihuana and related substances.

The form in which the drug is used may make a difference: It is possible that when smoked the material taken into the body differs from the orally consumed drug. The route of absorption—lungs or digestive tract—may also make a difference.

At the usual levels of social use, the typical subjective effects are alteration of time and space perception, sense of euphoria, relaxation, well-being and disinhibition, dulling of attention, fragmentation of thought, impaired immediate memory, an altered sense of identity, exaggerated laughter, and increased suggestibility. The set and setting of drug use are important in determining subjective effects.

Physiological effects at typical American levels of use are relatively few; one of the most consistent is an increase in pulse. Others are reddening of the eyes and dryness of mouth and throat. Neurological examinations reveal no major effects, although several small effects have been noted.

Acute psychotic effects appear to occur infrequently, usually at high dosages, and at social use levels in susceptible individuals.

In intellectual and motor performance, changes in time sense do take place. Generally the more complex and demanding the task, the greater is the degree of impairment.

Thus far there is little evidence that marihuana has teratogenic effects, but despite the absence of such evidence, it is obviously unwise for anyone to use drugs of unknown teratogenic or mutagenic properties during childbearing years.

Little is known about the effects of long-term chronic use.

It is generally conceded that marihuana use does not necessarily lead directly to use of other drugs, although those who find marihuana attractive may be attracted to other drugs. While a high percentage of heroin users have used marihuana, most marihuana users do not appear to be attracted to heroin.

The report emphasizes that much is yet to be learned about marihuana—effects of long-term use, possible interactions with other drugs, patterns of drug use, including parental attitudes, child-rearing practices, peer pressures, and other aspects of subcultural and cultural practices that affect use. It is imperative that effective prevention and education techniques be found to avert drug abuse of all types.

Copies of the 176-page report may be obtained from the Office of Communications, National Institute of Mental Health, Chevy Chase, Md. 20015.

recent nimh publications

Single copies of these publications may be obtained from the Office of Communications, National Institute of Mental Health (Publications Issuance Unit, Room 1B64, Parklawn Building, 5600 Fishers Lane, Rockville, Md. 20852). A complete list of all publications available from the NIMH may also be obtained from the Office of Communications. If a price is given, the publication may be ordered in quantity from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Enclose a check or money order payable to the Superintendent of Documents.

Volunteers in Community Mental Health. This 45-page pamphlet describes (1) how volunteers can work in helping children, (2) helping the troubled, (3) helping the elderly, (4) senior citizens volunteer work, (5) emergency telephone services, (6) community involvement programs, (7) citizen action on drug abuse, (8) helping alcoholics. Illustrations from actual volunteer programs are given. Public Health Service Publication No. 2071. 30¢

The Functions of the Police in Modern Society. This 128-page monograph analyzes the basic character of police work and relates it to the courts and community. It also considers the future of police work—problems of upgrading police practice, streamlining police organization, and improving recruitment and training of police. New models of police practice are projected. Prepared by Egon Bittner, Ph.D., under contract to the NIMH. Public Health Service Publication No. 2059. 55¢

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